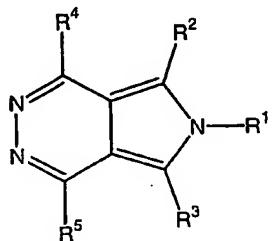


## WHAT IS CLAIMED IS:

1. A method of binding the  $\alpha_2\delta$  subunit of voltage gated calcium channels comprising a step of administering an effective amount of a compound 5 represented by Formula (I):



or a pharmaceutically acceptable salt thereof, wherein

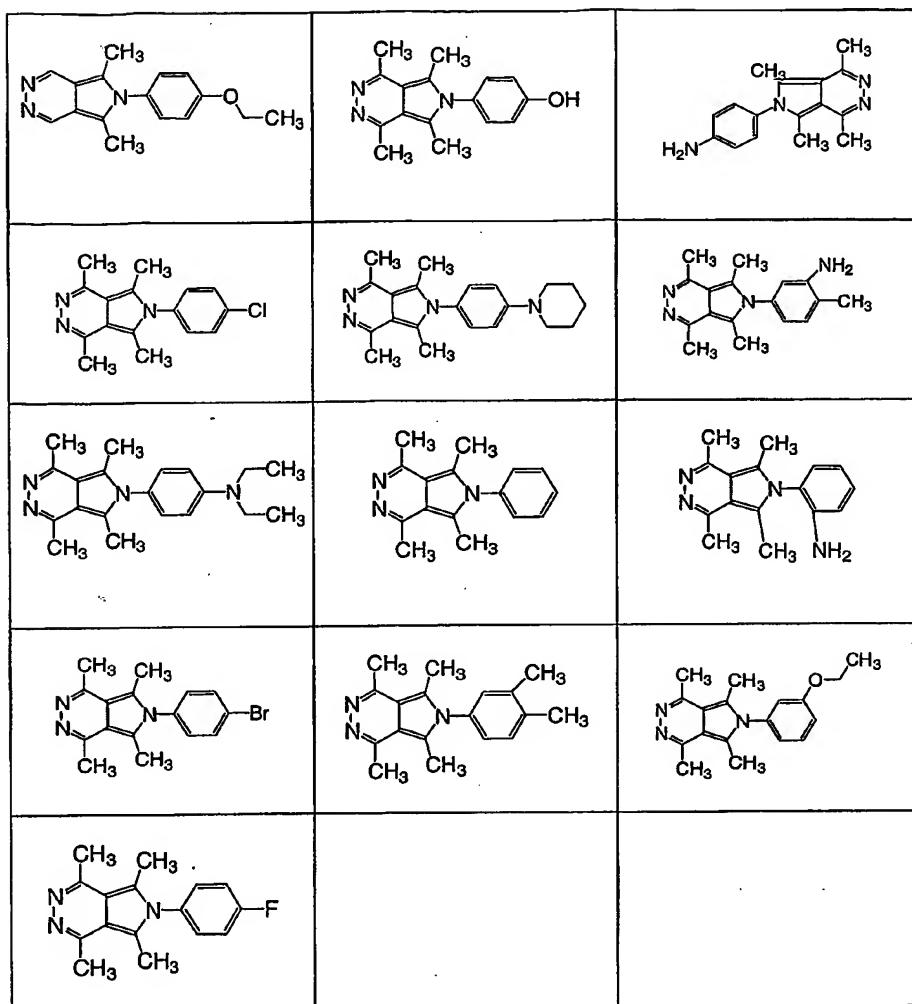
R1 is  $-C_0\text{-}6\text{alkyl-}aryl$ ,  $-C_0\text{-}6\text{alkyl-}heteroaryl$ ,  $-C_0\text{-}6\text{alkyl-}C_3\text{-}$

10  $6\text{cycloalkyl}$ , or  $-C_0\text{-}6\text{alkyl-}heteroC_3\text{-}7\text{cycloalkyl}$ , optionally substituted with 1-6 independent halogen,  $-CN$ ,  $NO_2$ ,  $-C_1\text{-}6\text{alkyl}$ ,  $-C_0\text{-}6\text{alkyl-}C_3\text{-}6\text{cycloalkyl}$ ,  $-C_0\text{-}6\text{alkyl-}heteroC_3\text{-}7\text{cycloalkyl}$ ,  $-OR^6$ ,  $-NR^6R^7$ ,  $-C(=NR^6)NR^7R^8$ ,  $-N(-NR^8R^6)NR^7R^8$ ,  $-NR^6COR^7$ ,  $-NR^6CO_2R^7$ ,  $-NR^6SO_2R^88$ ,  $-NR^6CONR^7R^8$ ,  $-SR^88$ ,  $-SOR^88$ ,  $-SO_2R^88$ ,  $-SO_2NR^6R^7$ ,  $-COR^6$ ,  $-CO_2R^6$ ,  $-CONR^6R^7$ , 15  $-C(=NR^6)R^7$ , or  $-C(=NOR^6)R^7$  substituents;

R2, R4, R3, and R5 each independently is  $-C_0\text{-}6\text{alkyl}$ ,  $-C_0\text{-}6\text{alkyl-}aryl$ ,  $-C_0\text{-}6\text{alkyl-}heteroaryl$ ,  $-C_0\text{-}6\text{alkyl-}C_3\text{-}6\text{cycloalkyl}$ , or  $-C_0\text{-}6\text{alkyl-}heteroC_3\text{-}7\text{cycloalkyl}$ , optionally substituted with 1-6 independent halogen,  $-CN$ ,  $NO_2$ ,  $-C_1\text{-}6\text{alkyl}$ ,  $-OR^6$ ,  $-NR^6R^7$ ,  $-C(=NR^6)NR^7R^8$ ,  $-N(-NR^8R^6)NR^7R^8$ ,  $-NR^6COR^7$ ,

20  $-NR^6CO_2R^7$ ,  $-NR^6SO_2R^88$ ,  $-NR^6CONR^7R^8$ ,  $-SR^88$ ,  $-SOR^88$ ,  $-SO_2R^88$ ,  $-SO_2NR^6R^7$ ,  $-COR^6$ ,  $-CO_2R^6$ ,  $-CONR^6R^7$ , or  $-C(=NR^6)R^7$  substituents; and

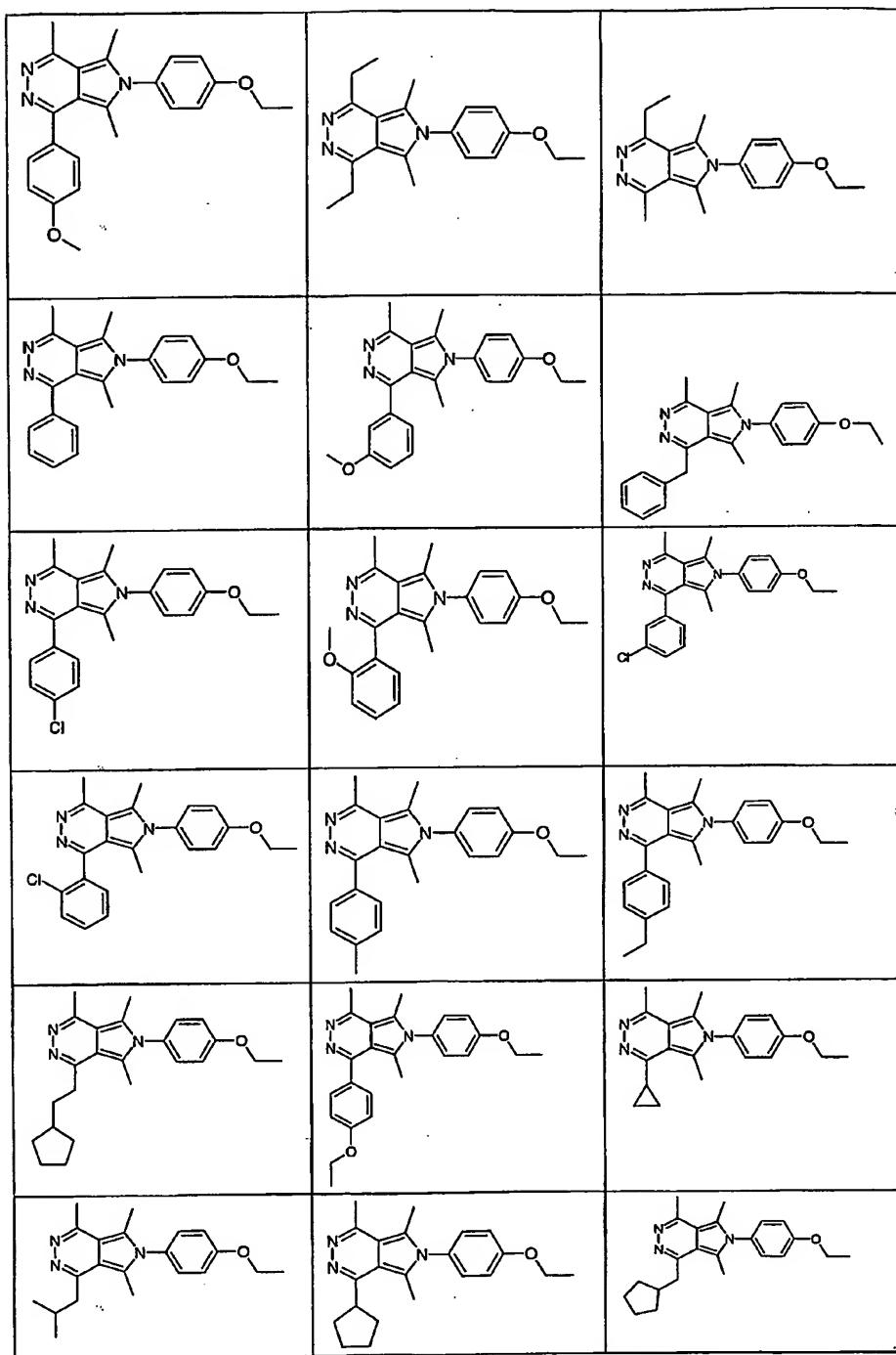
25  $R^6$ ,  $R^7$ ,  $R^8$ , and  $R^88$  each independently is  $-C_0\text{-}6\text{alkyl}$ ,  $-C_3\text{-}7\text{cycloalkyl}$ , heteroaryl, or aryl; optionally substituted with 1-5 independent halogen,  $-CN$ ,  $-C_1\text{-}6\text{alkyl}$ ,  $-O(C_0\text{-}6\text{alkyl})$ ,  $-O(C_3\text{-}7\text{cycloalkyl})$ ,  $-O(aryl)$ ,  $-N(C_0\text{-}6\text{alkyl})(C_0\text{-}6\text{alkyl})$ ,  $-N(C_0\text{-}6\text{alkyl})(C_3\text{-}7\text{cycloalkyl})$ , or  $-N(C_0\text{-}6\text{alkyl})(aryl)$  substituents; and provided that the compound is not selected from the following table:

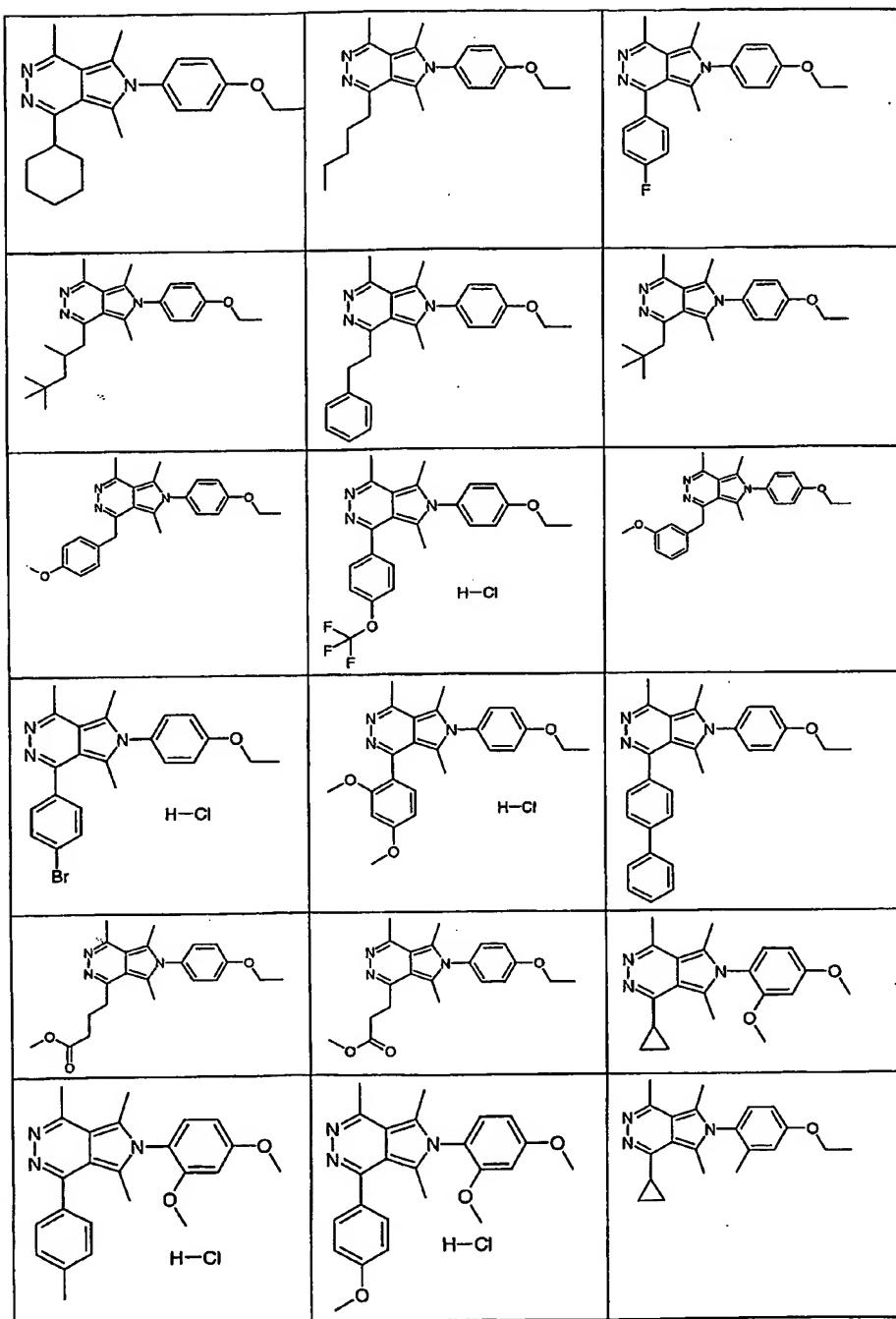


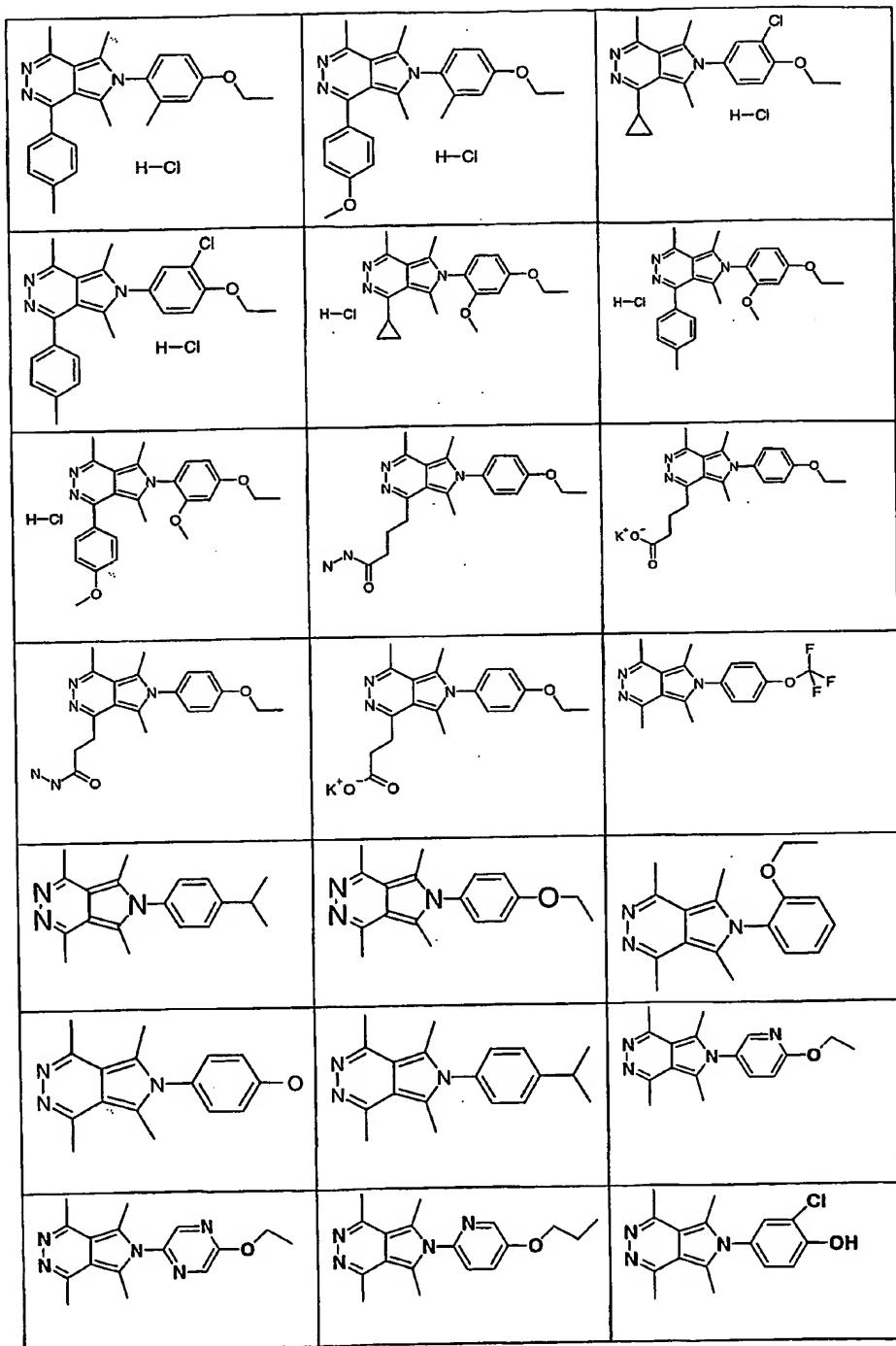
2. The method according to Claim 1, wherein R<sup>1</sup> is -C<sub>0-6</sub>alkyl-aryl.

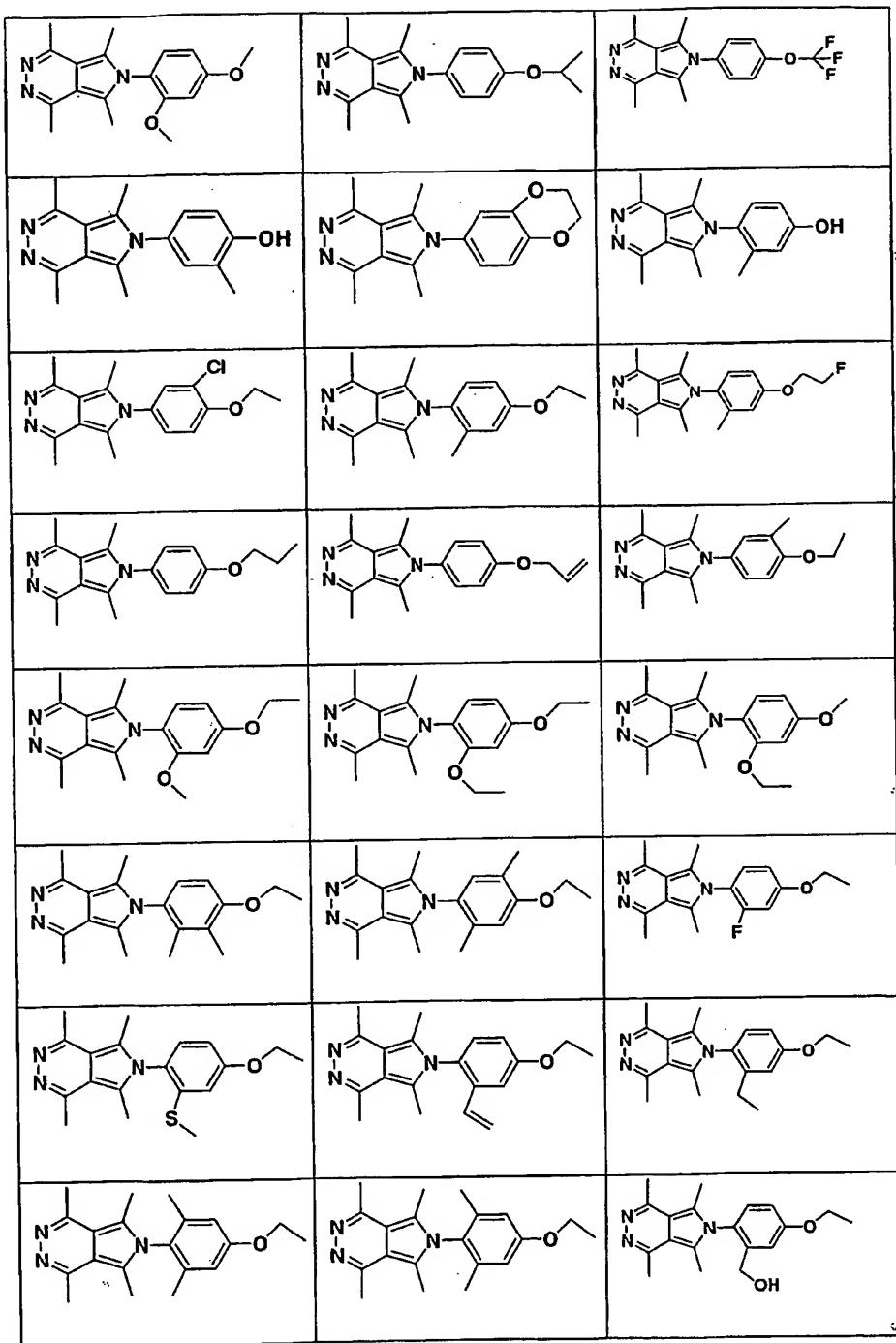
5 3. The method according to Claim 2, wherein R<sup>1</sup> is -C<sub>0-6</sub>alkyl-phenyl.

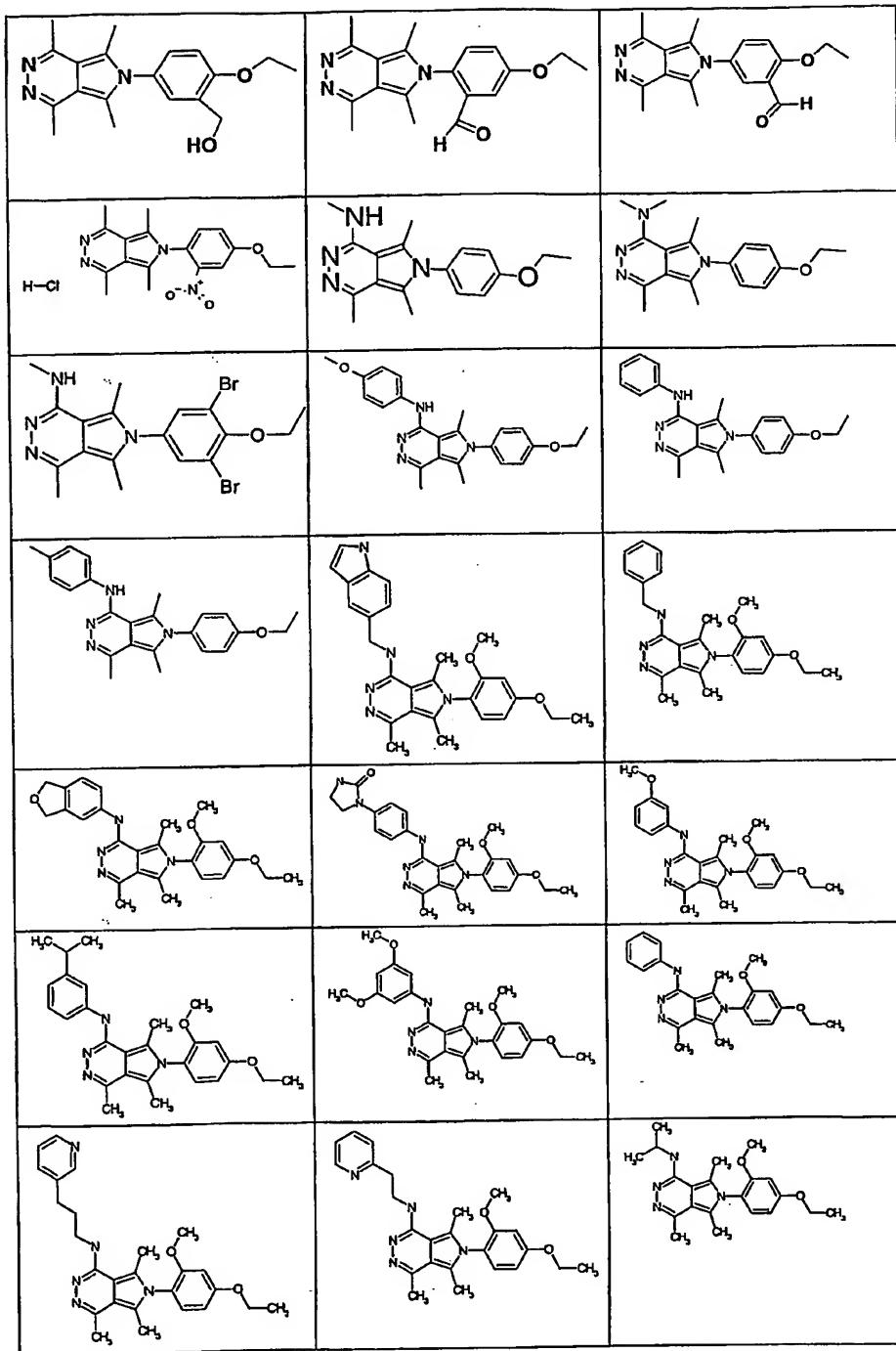
4. The method according to Claim 1, wherein the compound is selected from:

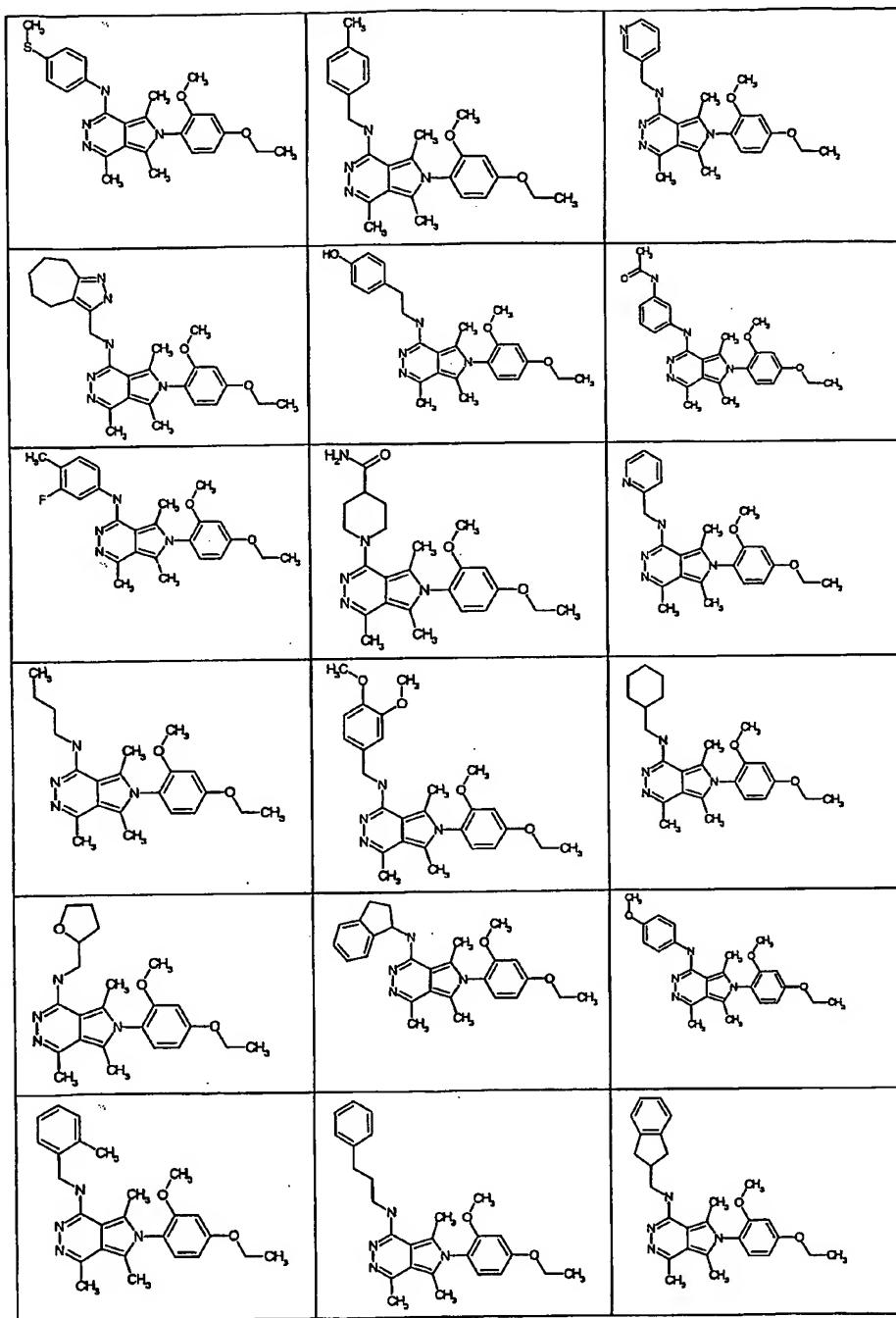


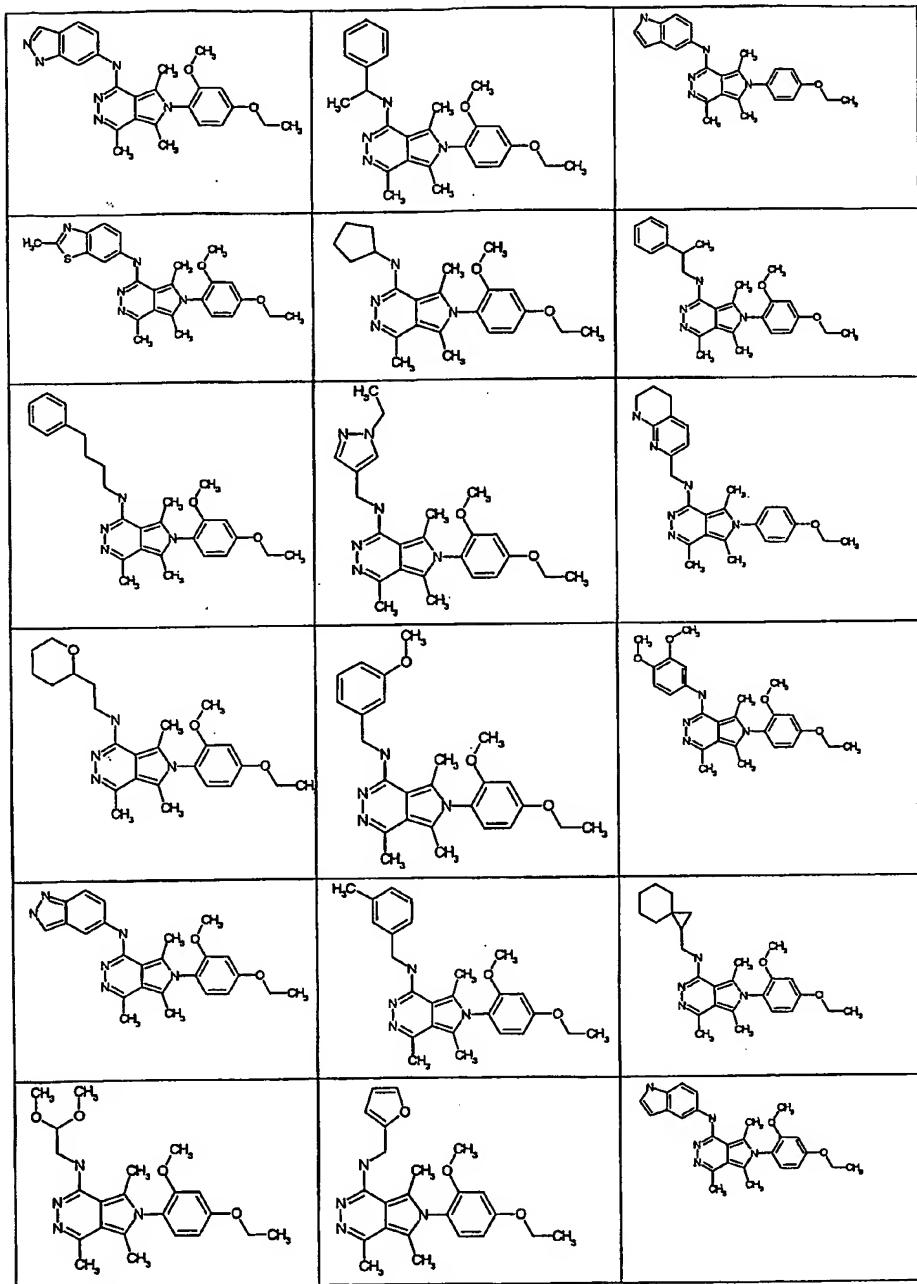


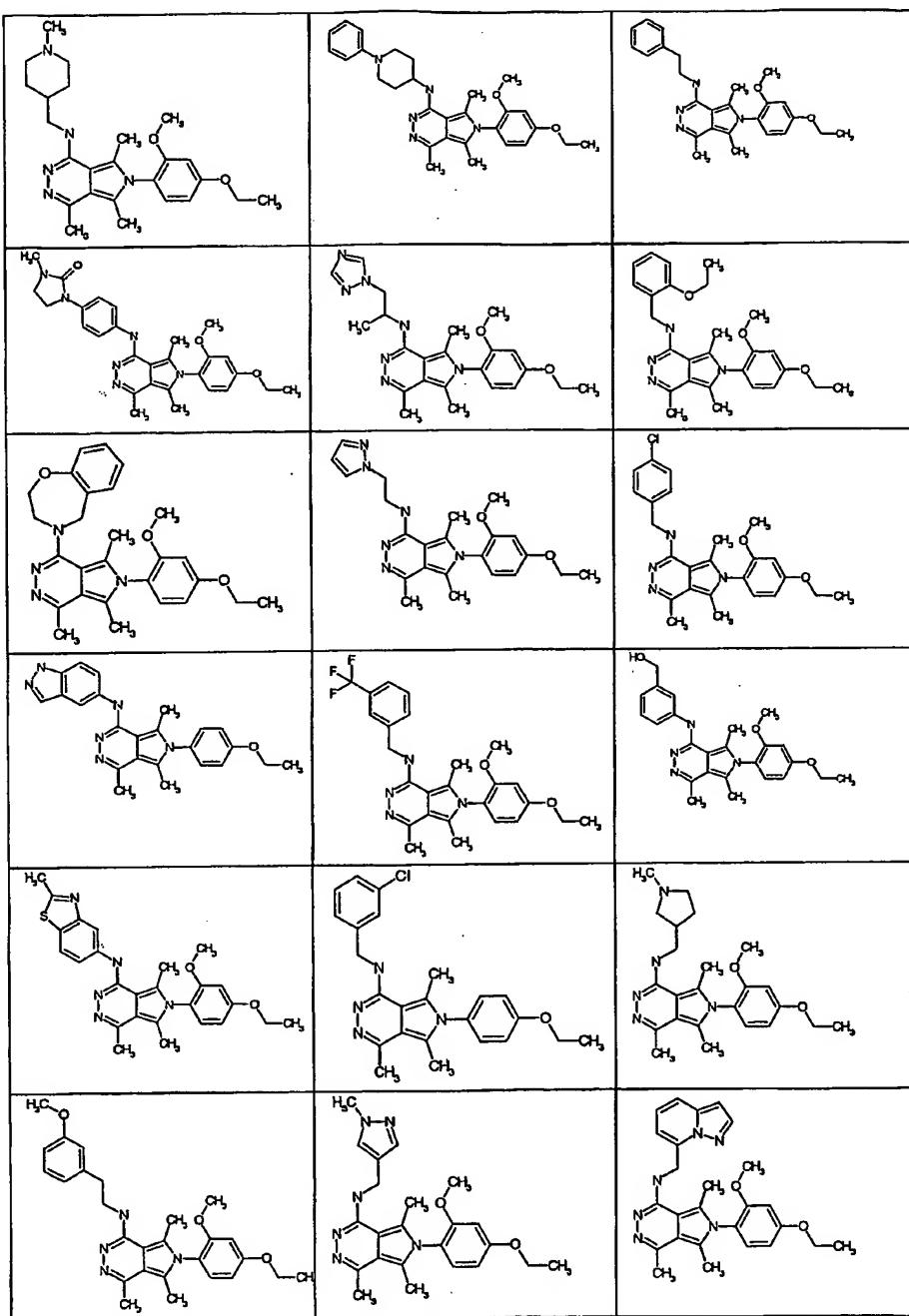


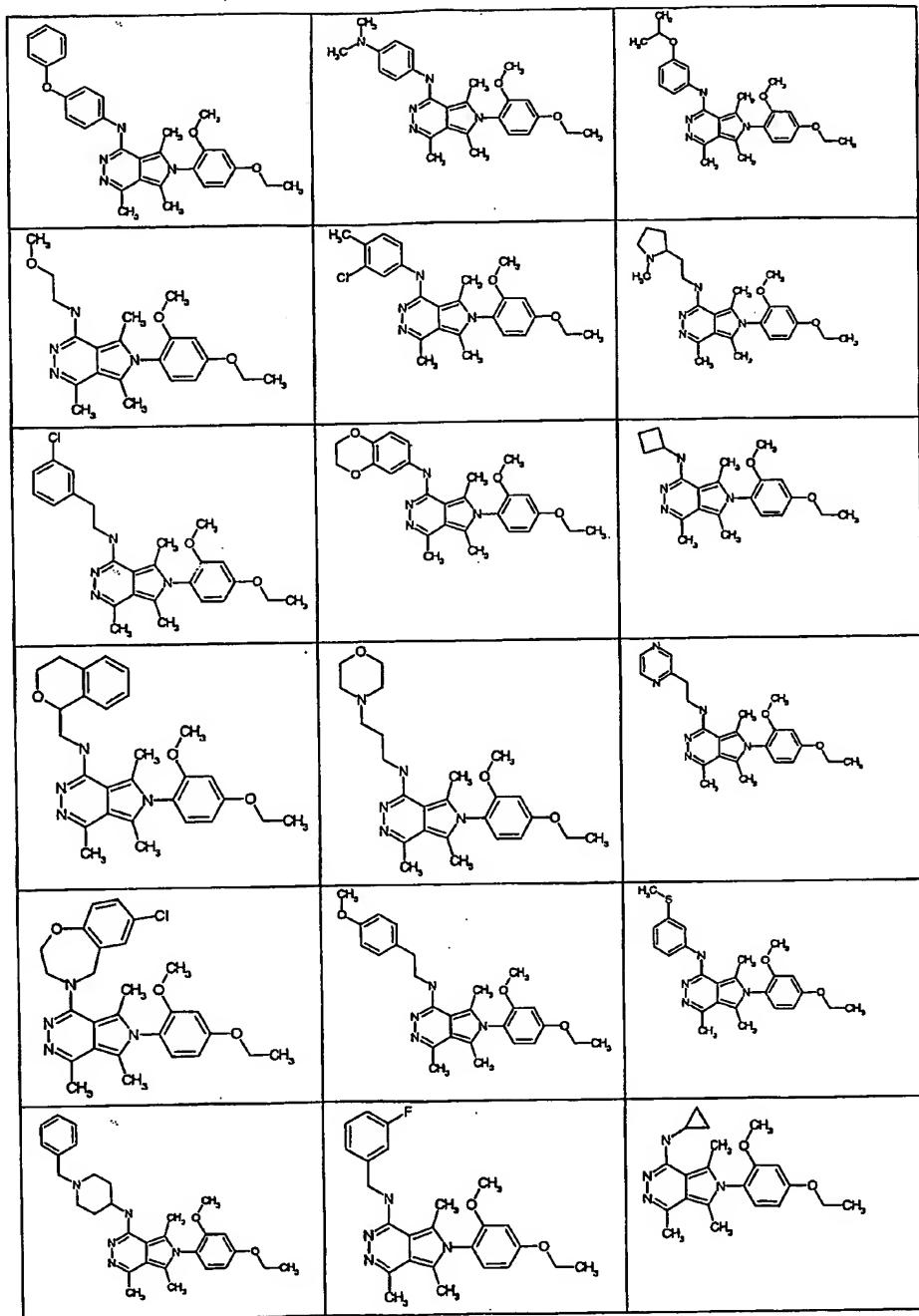


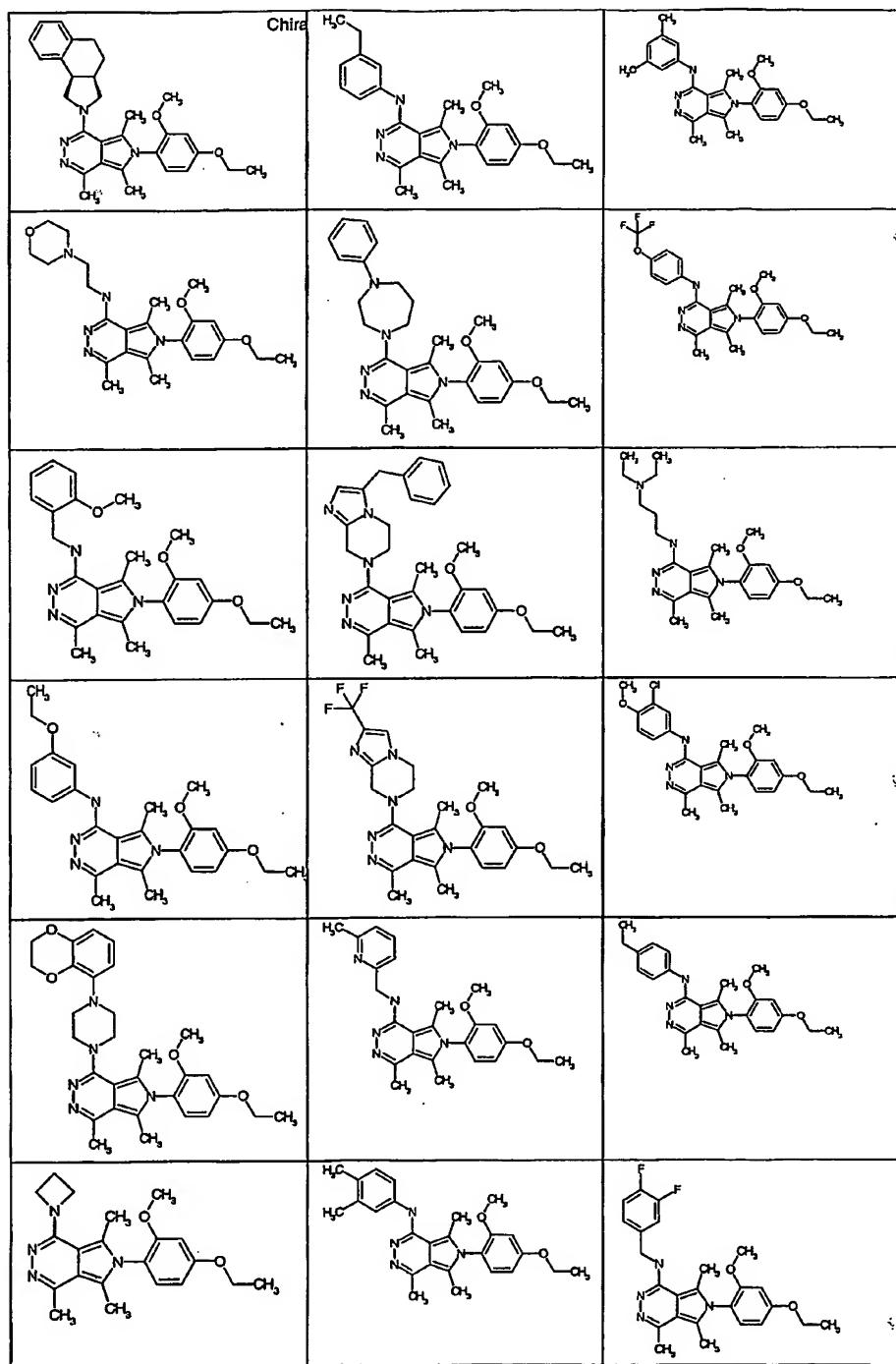


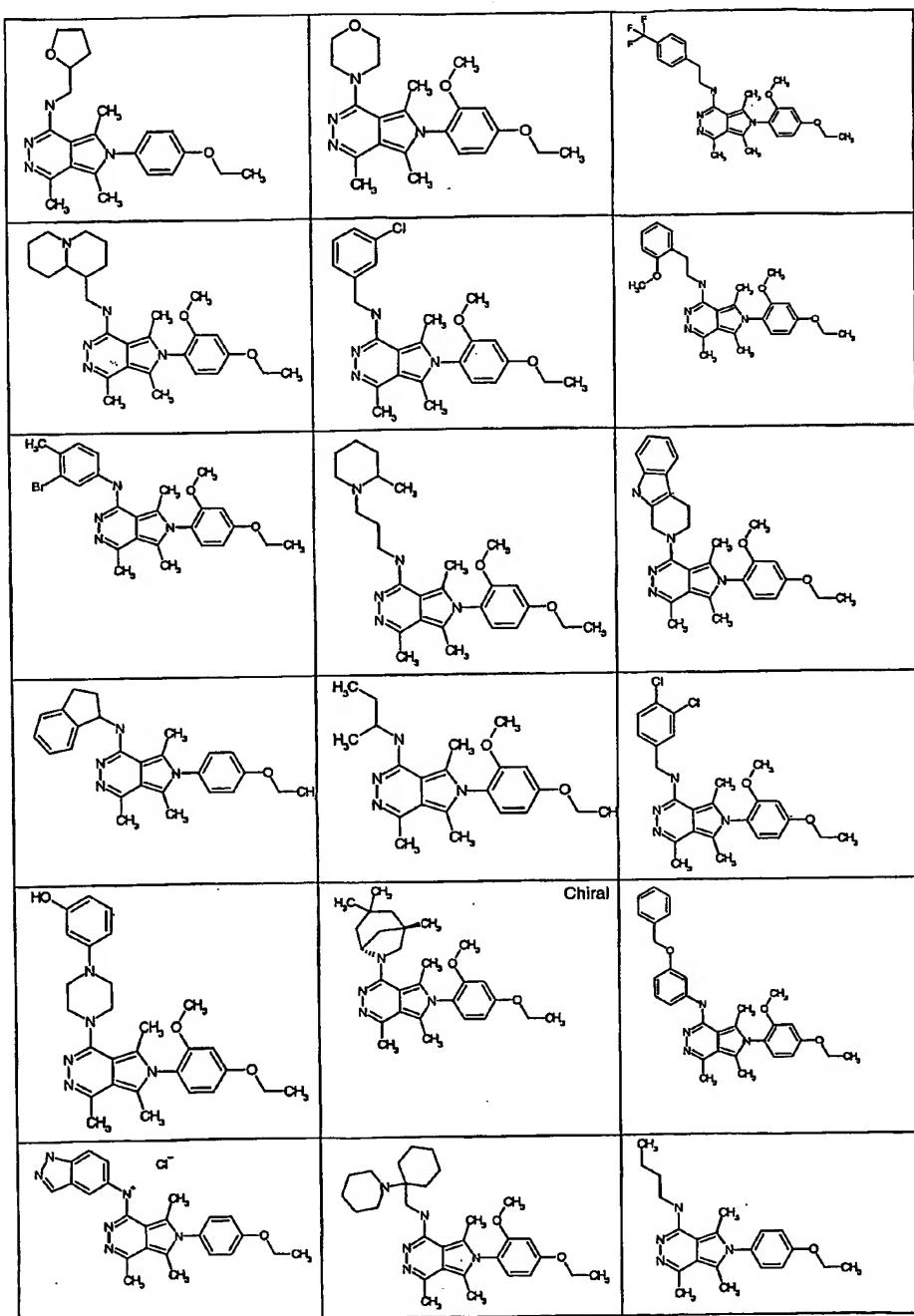


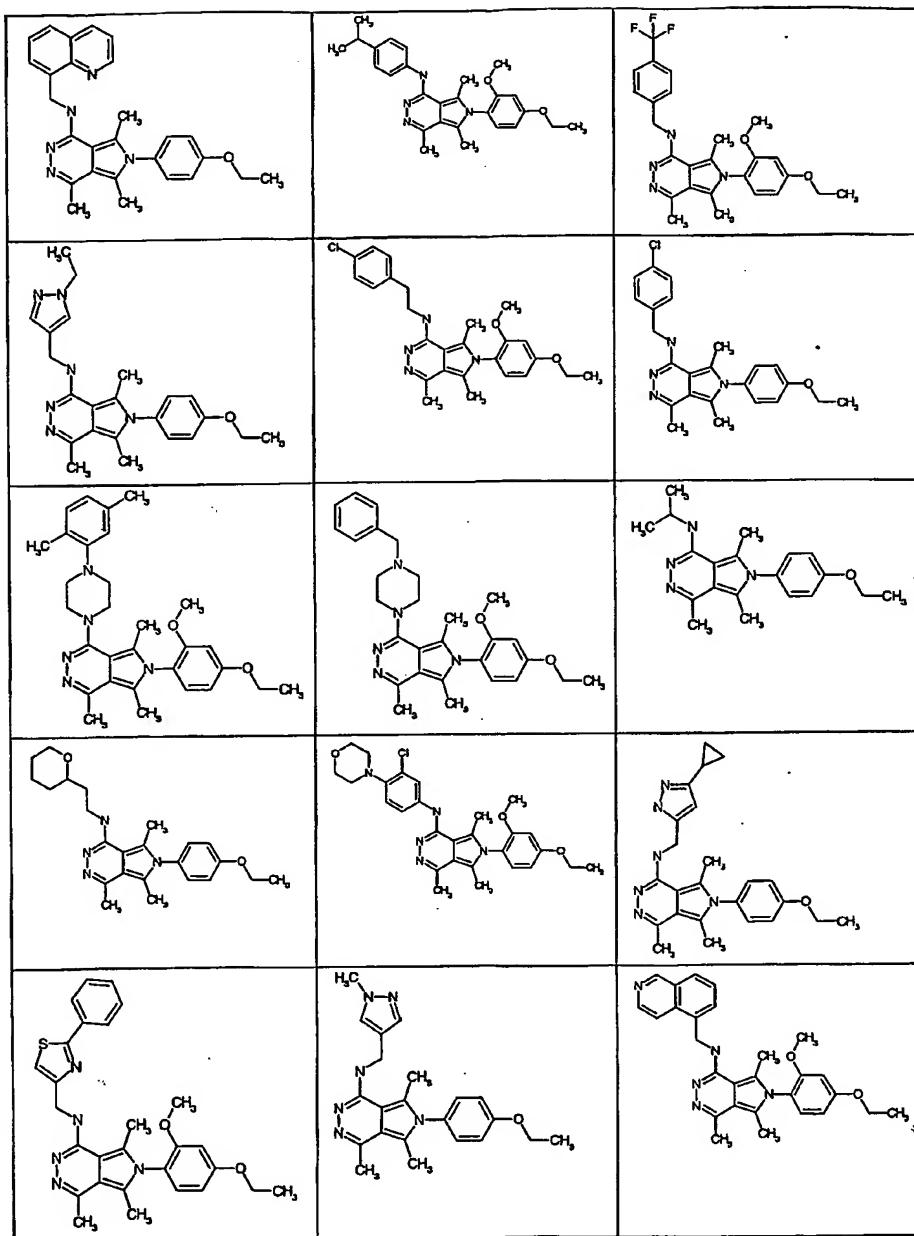


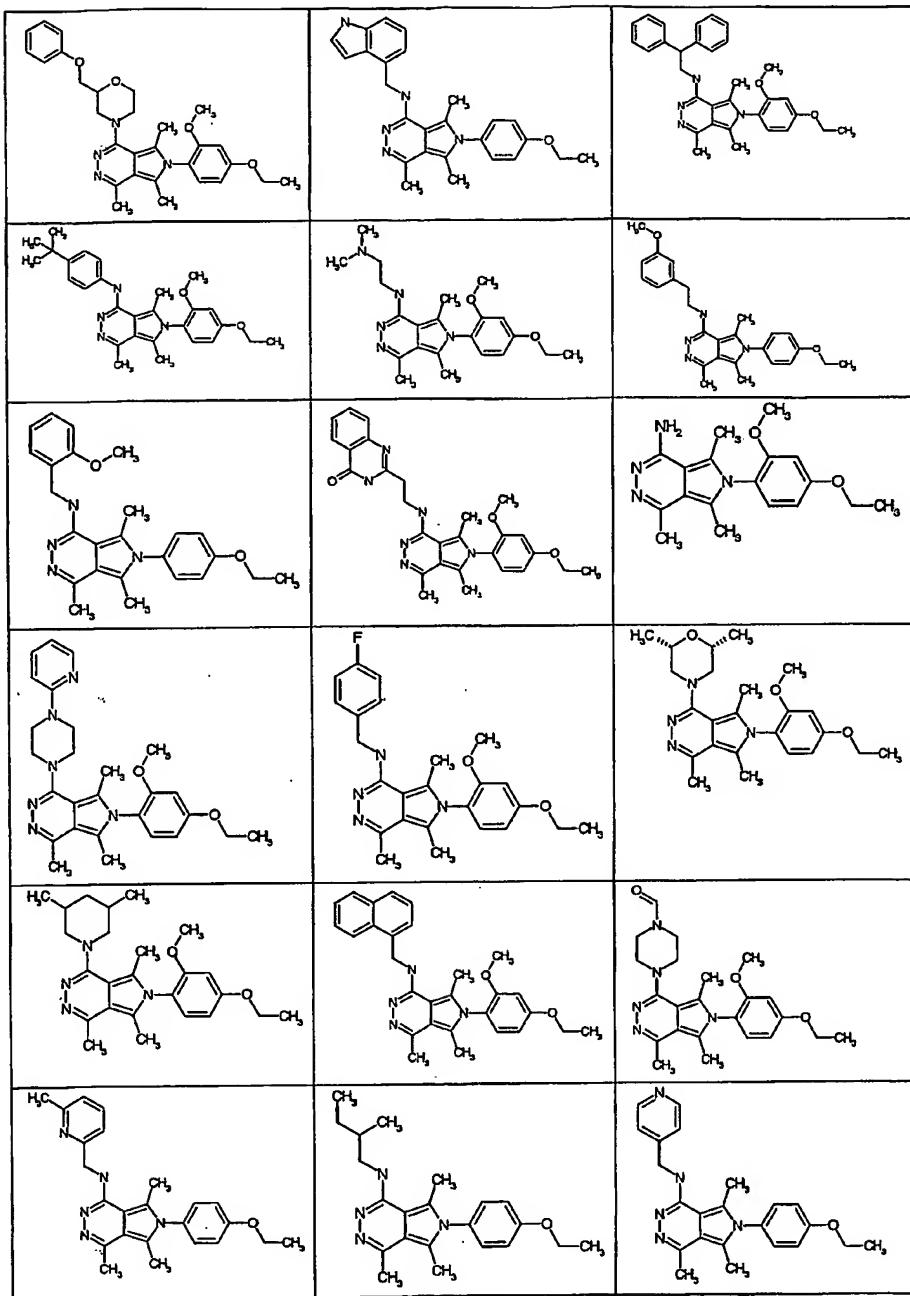


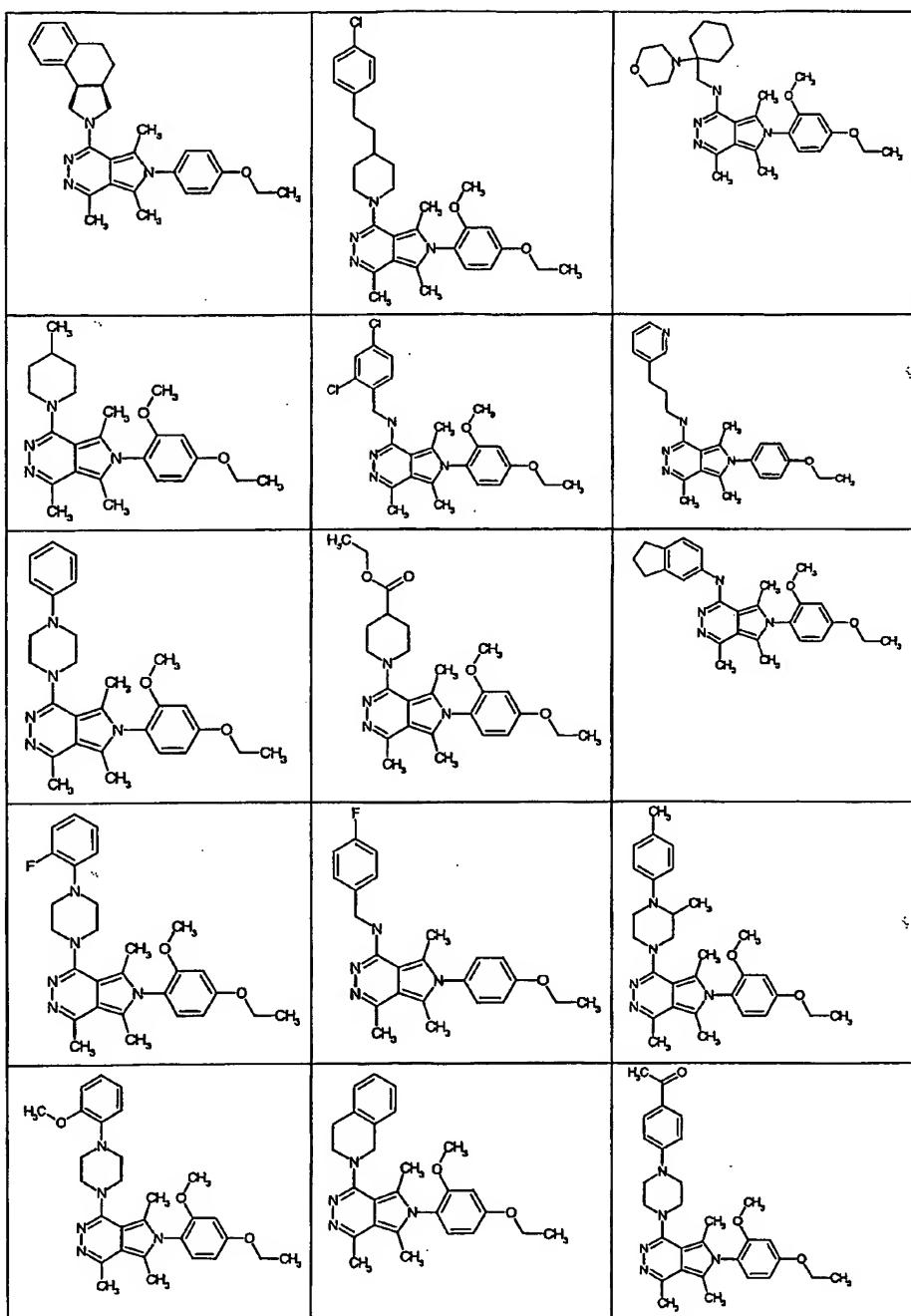


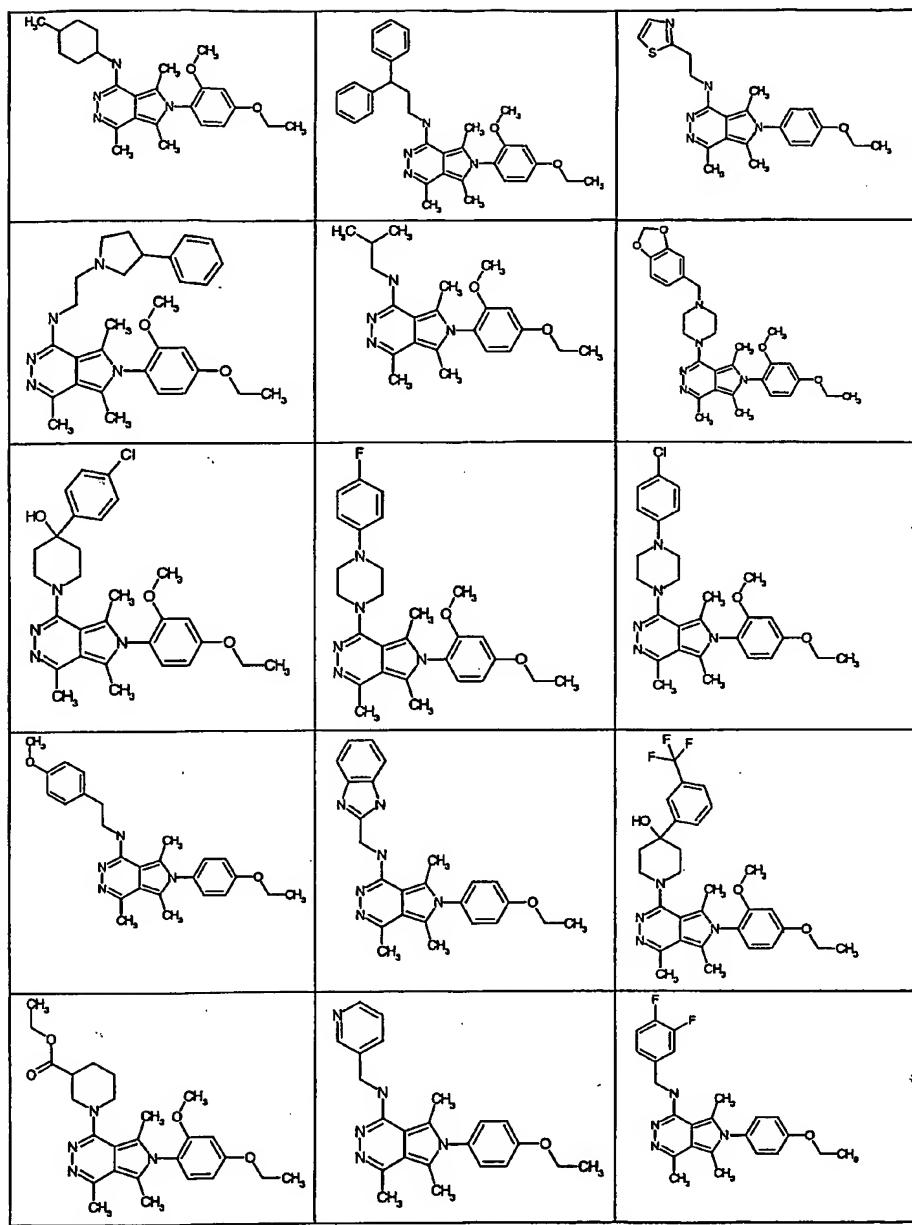


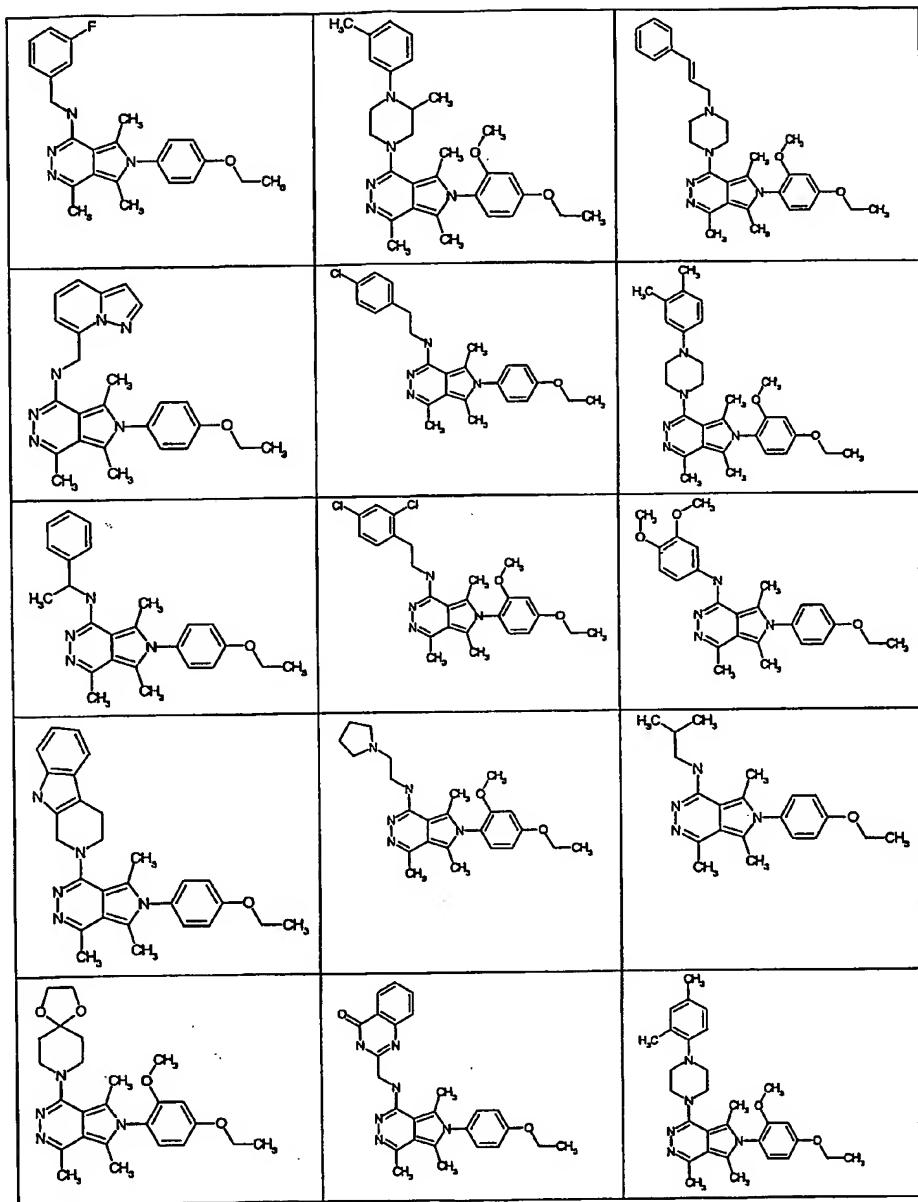


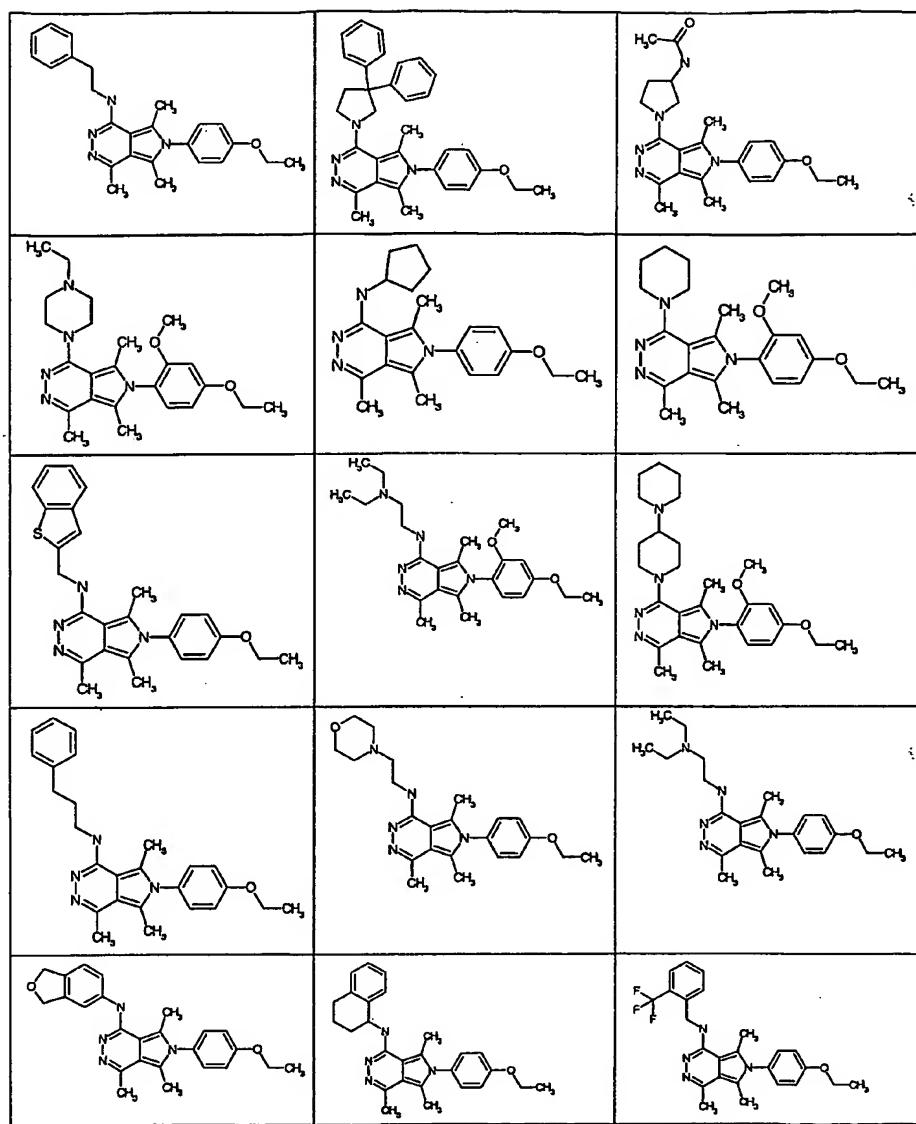


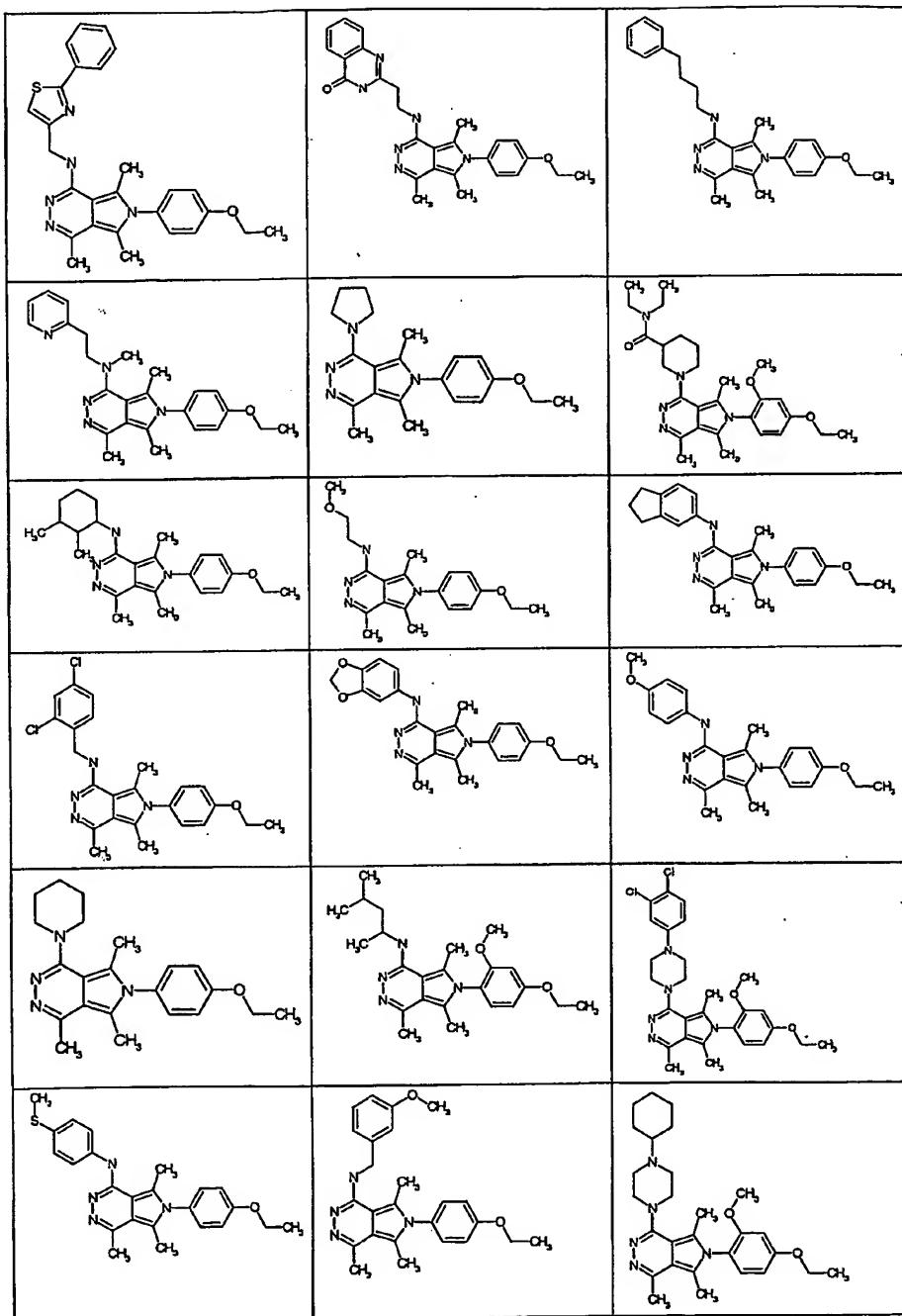


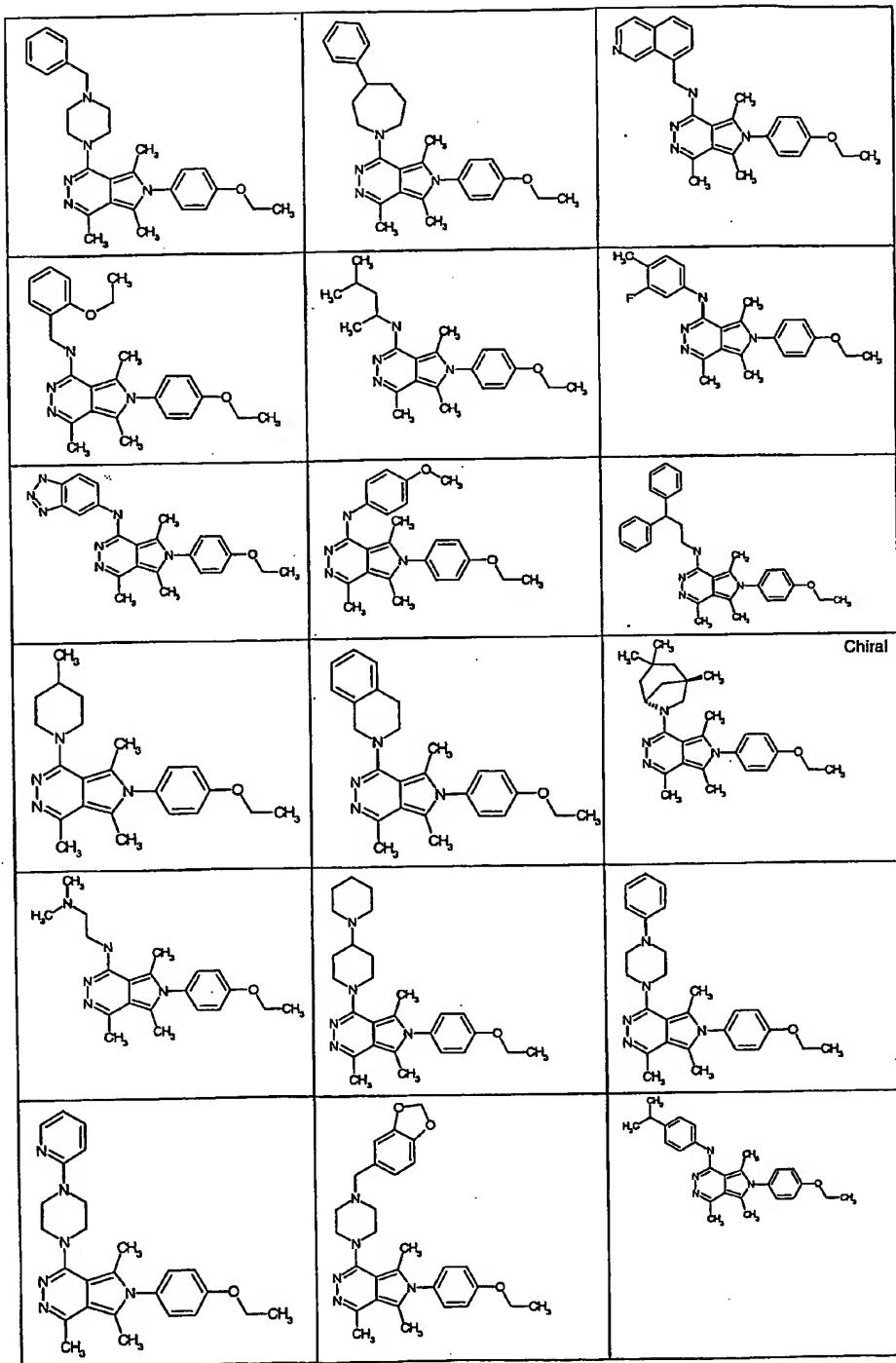


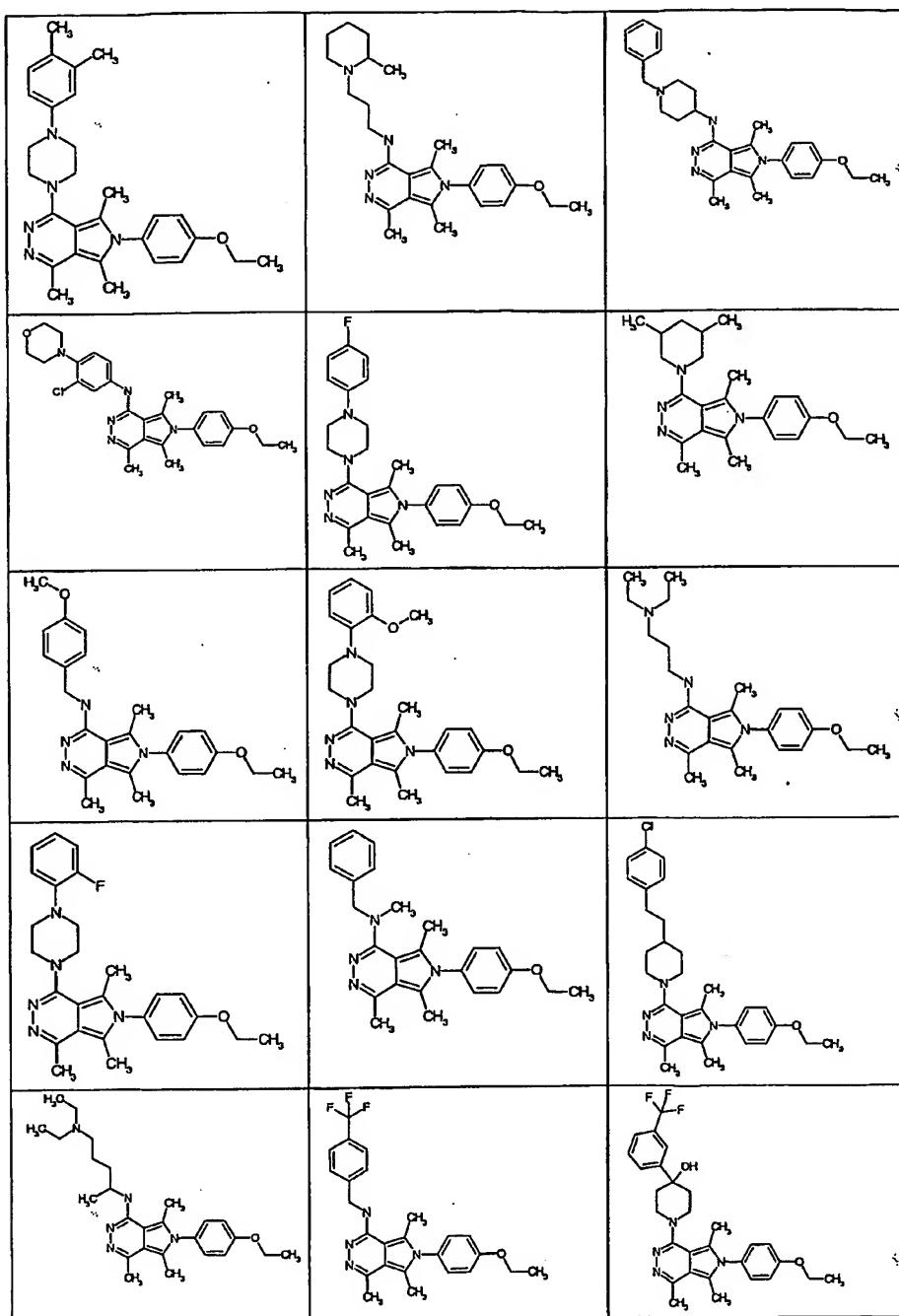


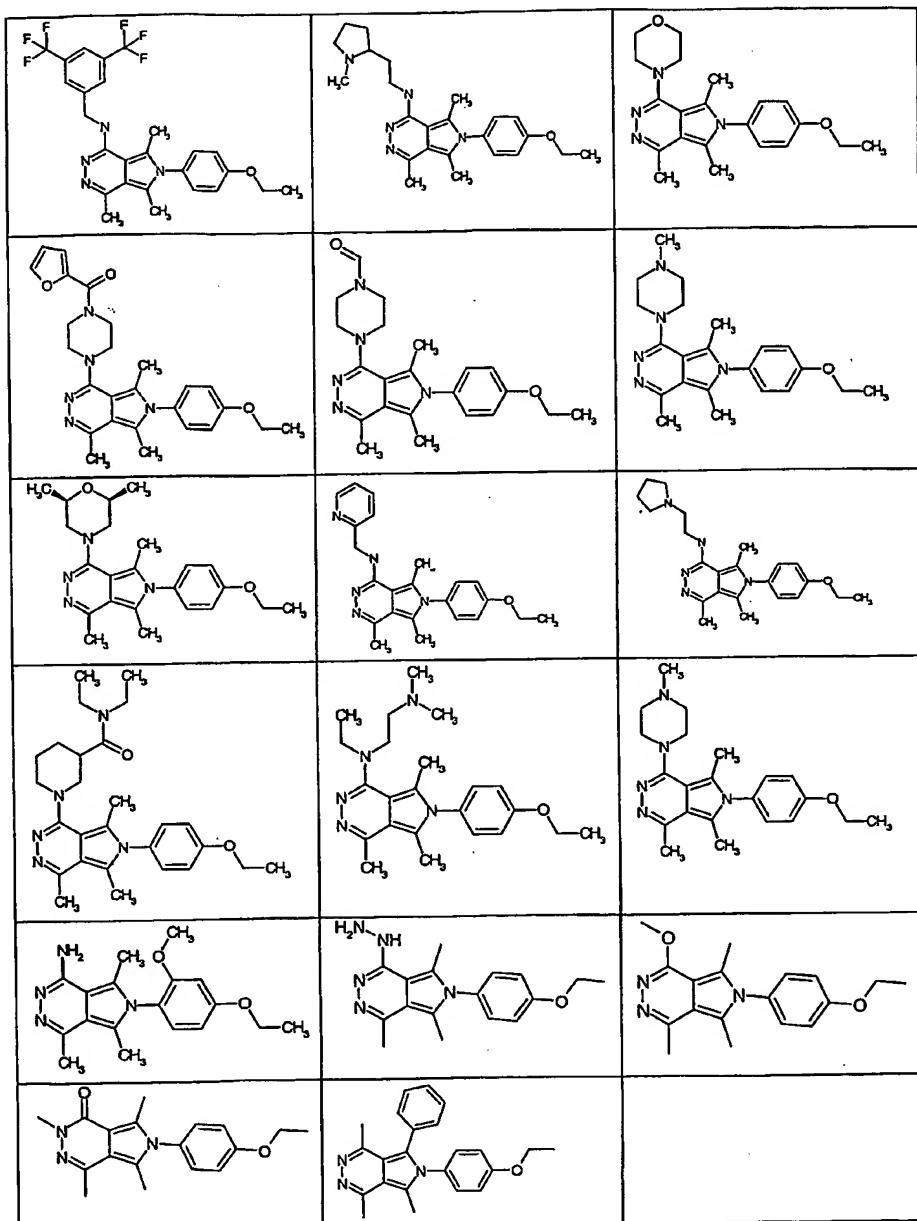












or a pharmaceutically acceptable salt thereof.

5. A method of treatment of neuropathic pain comprising a step of administering an effective amount of a pharmaceutical composition comprising:

a therapeutically effective amount of the compound according to claim 1, or a pharmaceutically acceptable salt thereof; and a pharmaceutically acceptable carrier.

5        6. The method according to claim 5, wherein said composition further comprising i) an opiate agonist, ii) an opiate antagonist, iii) an mGluR5 antagonist, iv) a 5HT receptor agonist, v) a 5HT receptor antagonist, vi) a sodium channel antagonist, vii) an NMDA receptor agonist, viii) an NMDA receptor antagonist, ix) a COX-2 selective inhibitor, x) an NK1 antagonist, xi) a non-steroidal anti-  
10      inflammatory drug, xii) a GABA-A receptor modulator, xiii) a dopamine agonist, xiv) a dopamine antagonist, xv) a selective serotonin reuptake inhibitor, xvi) a tricyclic antidepressant drug, xvii) a norepinephrine modulator, xviii) L-DOPA, xix) buspirone, xx) a lithium salt, xxi) valproate, xxii) neurontin, xxiii) olanzapine, xxiv) a nicotinic agonist, xxv) a nicotinic antagonist, xxvi) a muscarinic agonist, xxvii) a muscarinic antagonist, xxviii) a selective serotonin and norepinephrine reuptake inhibitor (SSNRI), xxix) a heroin substituting drug, xxx) disulfiram, or xxxi) acamprosate.

20        7. The method according to claim 6, wherein said heroin substituting drug is methadone, levo-alpha-acetylmethadol, buprenorphine or naltrexone.

25        8. A method of treatment or prevention of pain comprising the step of administering a therapeutically effective amount, or a prophylactically effective amount, of the compound according to claim 1 or a pharmaceutically acceptable salt thereof.

30        9. A method of treatment or prevention of a pain disorder wherein said pain disorder is acute pain, persistent pain, chronic pain, inflammatory pain, or neuropathic pain, comprising the step of administering a therapeutically effective amount, or a prophylactically effective amount, of the compound according to claim 1 or a pharmaceutically acceptable salt thereof.

35        10. A method of treatment or prevention of anxiety, depression, bipolar disorder, psychosis, drug withdrawal, tobacco withdrawal, memory loss, cognitive impairment, dementia, Alzheimer's disease, schizophrenia or panic comprising the

step of administering a therapeutically effective amount, or a prophylactically effective amount, of the compound according to claim 1 or a pharmaceutically acceptable salt thereof.

5           11. A method of treatment or prevention of disorders of extrapyramidal motor function comprising the step of administering a therapeutically effective amount, or a prophylactically effective amount, of the compound according to claim 1 or a pharmaceutically acceptable salt thereof.

10           12. The method of claim 11 wherein said disorder of extrapyramidal motor function is Parkinson's disease, progressive supramuscular palsy, Huntington's disease, Gilles de la Tourette syndrome, or tardive dyskinesia.

15           13. A method of treatment or prevention of anxiety disorders comprising the step of administering a therapeutically effective amount, or a prophylactically effective amount, of the compound according to claim 1 or a pharmaceutically acceptable salt thereof.

20           14. The method of claim 13 wherein said anxiety disorder is panic attack, agoraphobia or specific phobias, obsessive-compulsive disorders, post-traumatic stress disorder, acute stress disorder, generalized anxiety disorder, eating disorder, substance-induced anxiety disorder, or nonspecified anxiety disorder.

25           15. A method of treatment or prevention of neuropathic pain comprising the step of administering a therapeutically effective amount, or a prophylactically effective amount, of the compound according to claim 1 or a pharmaceutically acceptable salt thereof.

30           16. A method of treatment or prevention of Parkinson's Disease comprising the step of administering a therapeutically effective amount, or a prophylactically effective amount, of the compound according to claim 1 or a pharmaceutically acceptable salt thereof.

35           17. A method of treatment or prevention of depression comprising the step of administering a therapeutically effective amount, or a prophylactically

effective amount, of the compound according to claim 1 or a pharmaceutically acceptable salt thereof.

18. A method of treatment or prevention of epilepsy comprising the  
5 step of administering a therapeutically effective amount, or a prophylactically effective amount, of the compound according to claim 1 or a pharmaceutically acceptable salt thereof.

19. A method of treatment or prevention of inflammatory pain  
10 comprising the step of administering a therapeutically effective amount, or a prophylactically effective amount, of the compound according to claim 1 or a pharmaceutically acceptable salt thereof.

20. A method of treatment or prevention of cognitive dysfunction  
15 comprising the step of administering a therapeutically effective amount, or a prophylactically effective amount, of the compound according to claim 1 or a pharmaceutically acceptable salt thereof.

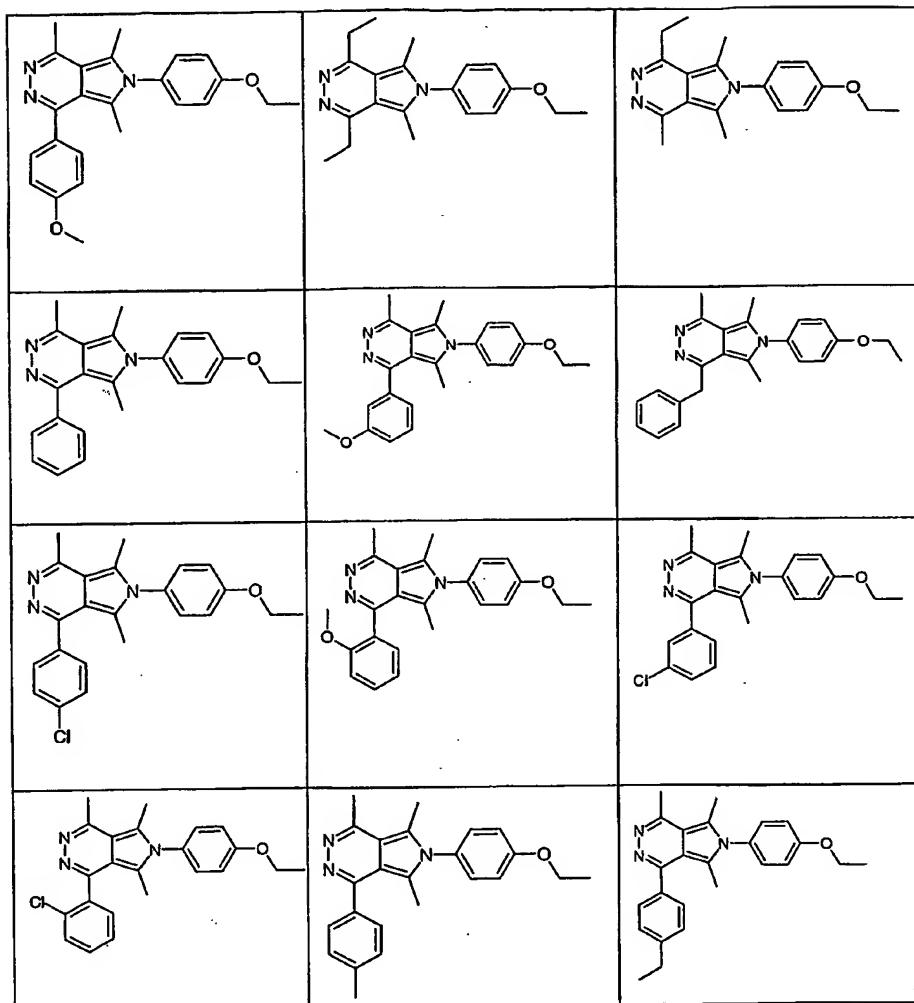
21. A method of treatment or prevention of drug addiction; drug abuse  
20 and drug withdrawal comprising the step of administering a therapeutically effective amount, or a prophylactically effective amount, of the compound according to claim 1 or a pharmaceutically acceptable salt thereof.

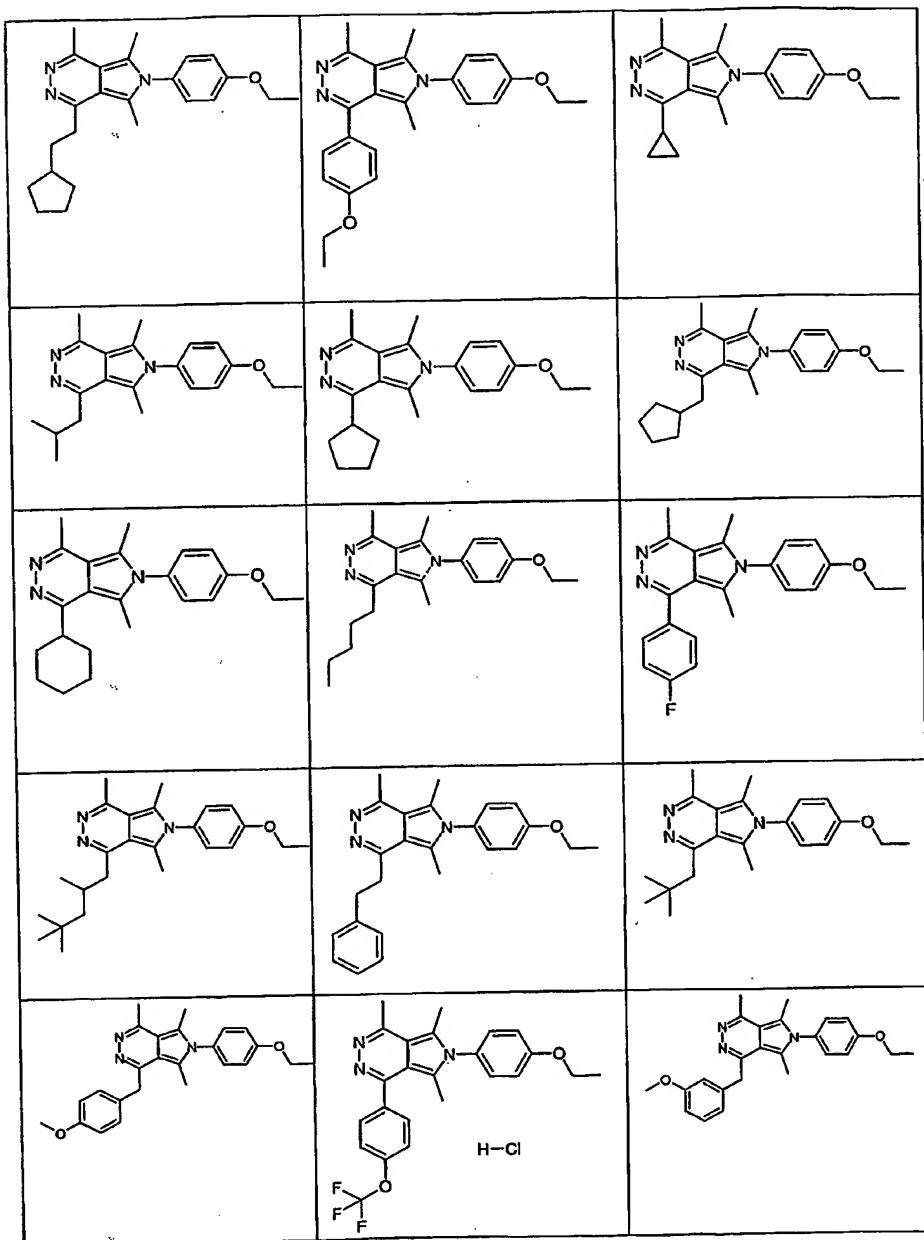
22. A method of treatment or prevention of bipolar disorders  
25 comprising the step of administering a therapeutically effective amount, or a prophylactically effective amount, of the compound according to claim 1 or a pharmaceutically acceptable salt thereof.

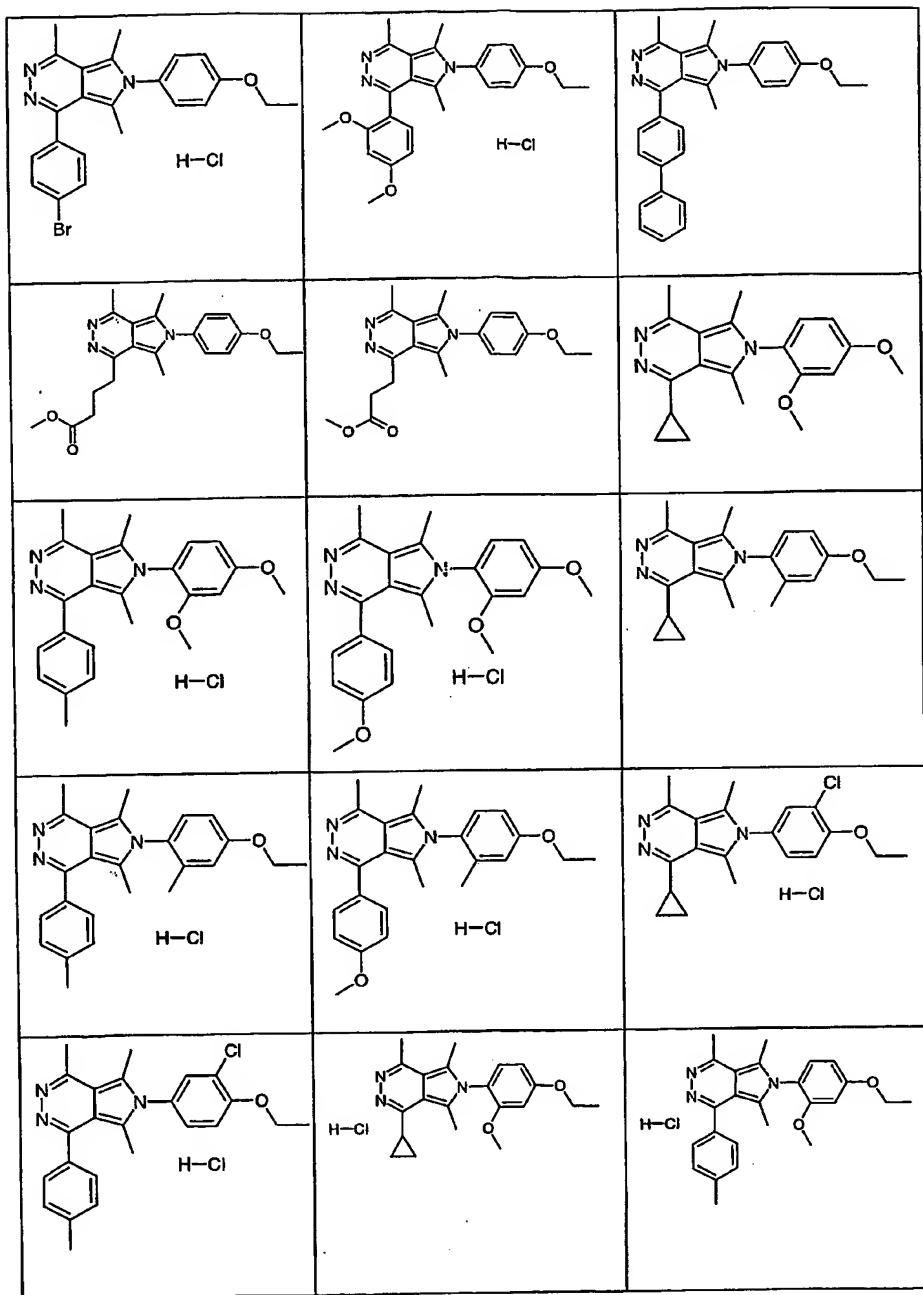
23. A method of treatment or prevention of circadian rhythm and sleep  
30 disorders comprising the step of administering a therapeutically effective amount, or a prophylactically effective amount, of the compound according to claim 1 or a pharmaceutically acceptable salt thereof.

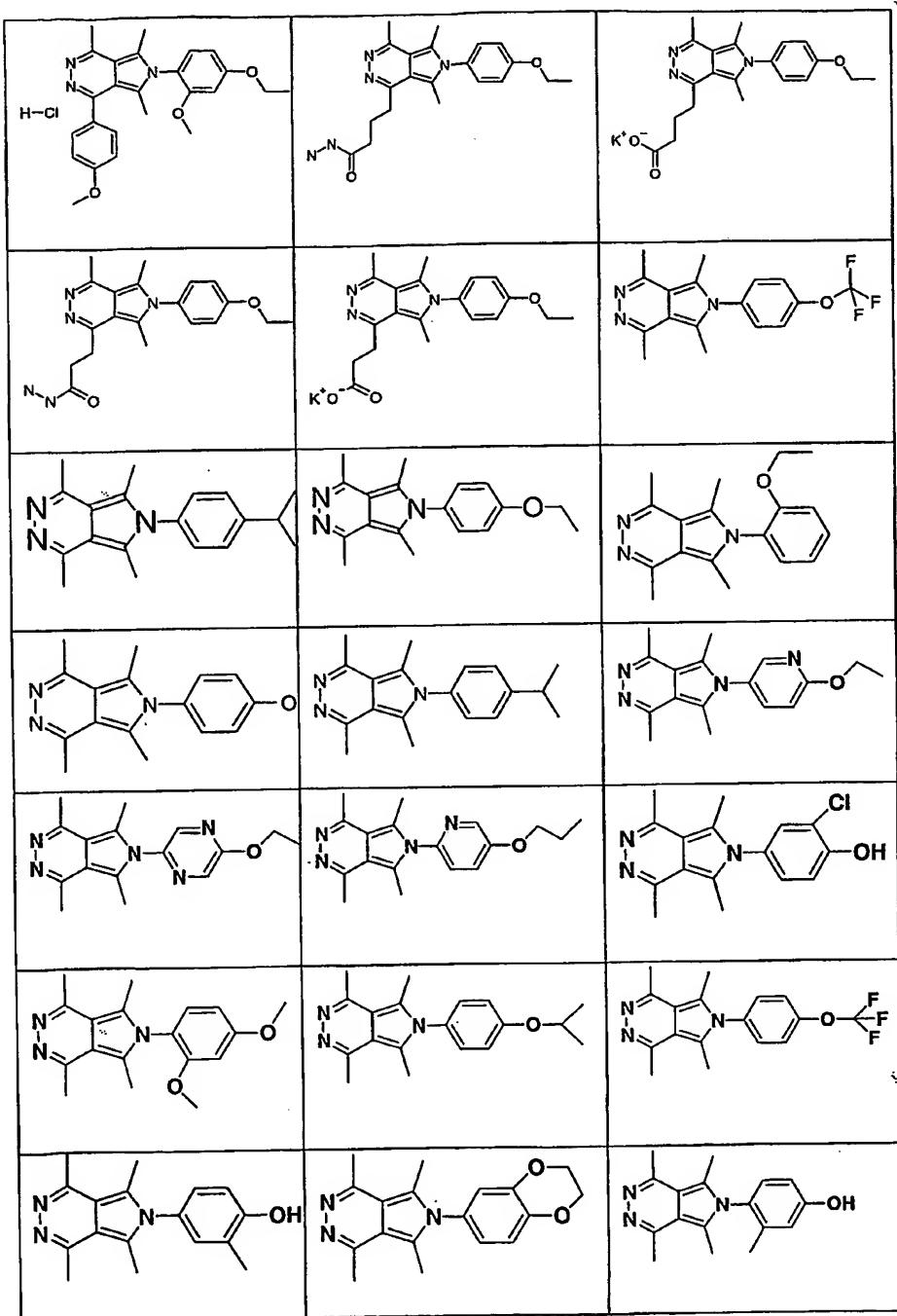
24. The method of Claim 23 wherein the circadian rhythm and sleep  
35 disorders are shift-work induced sleep disorder or jet-lag.

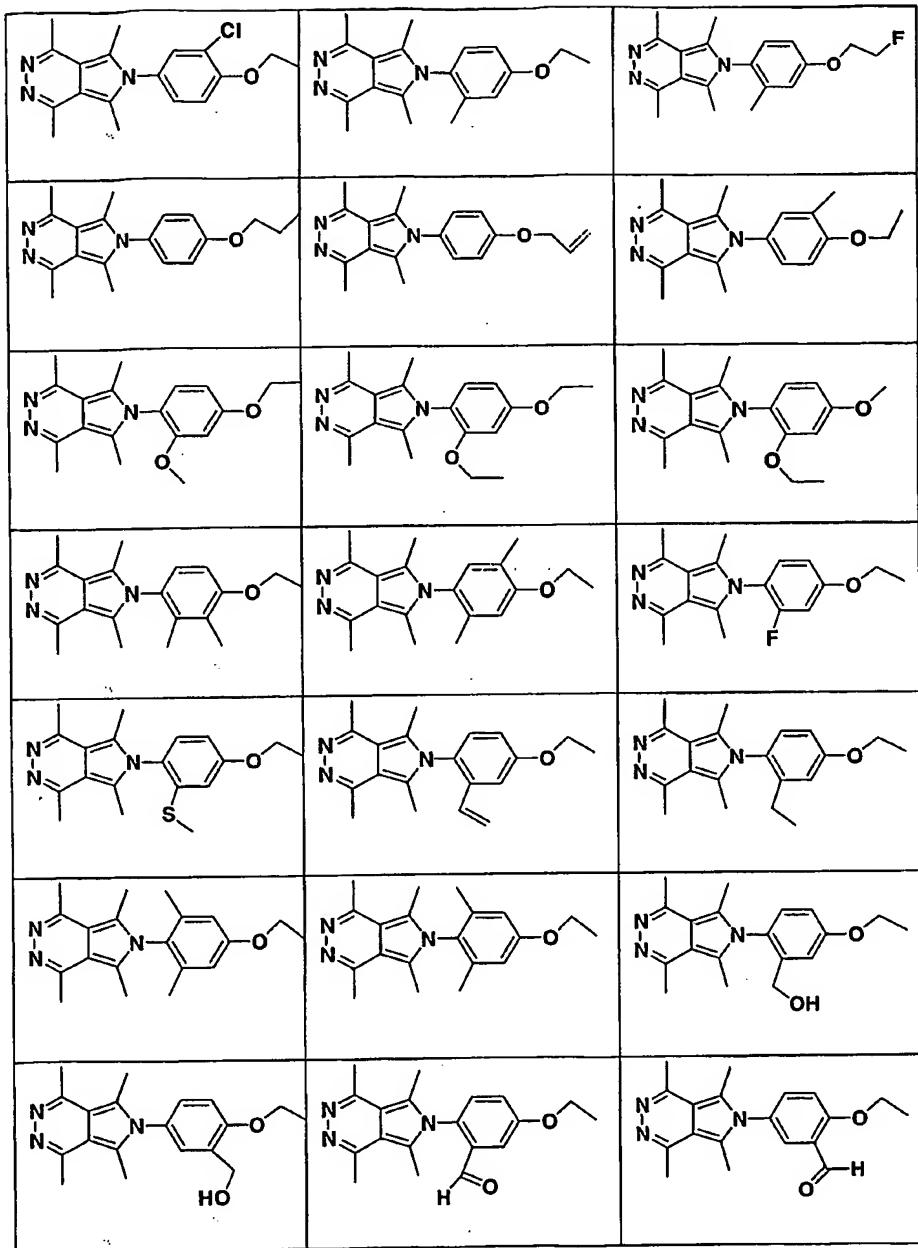
25. A compound selected from:

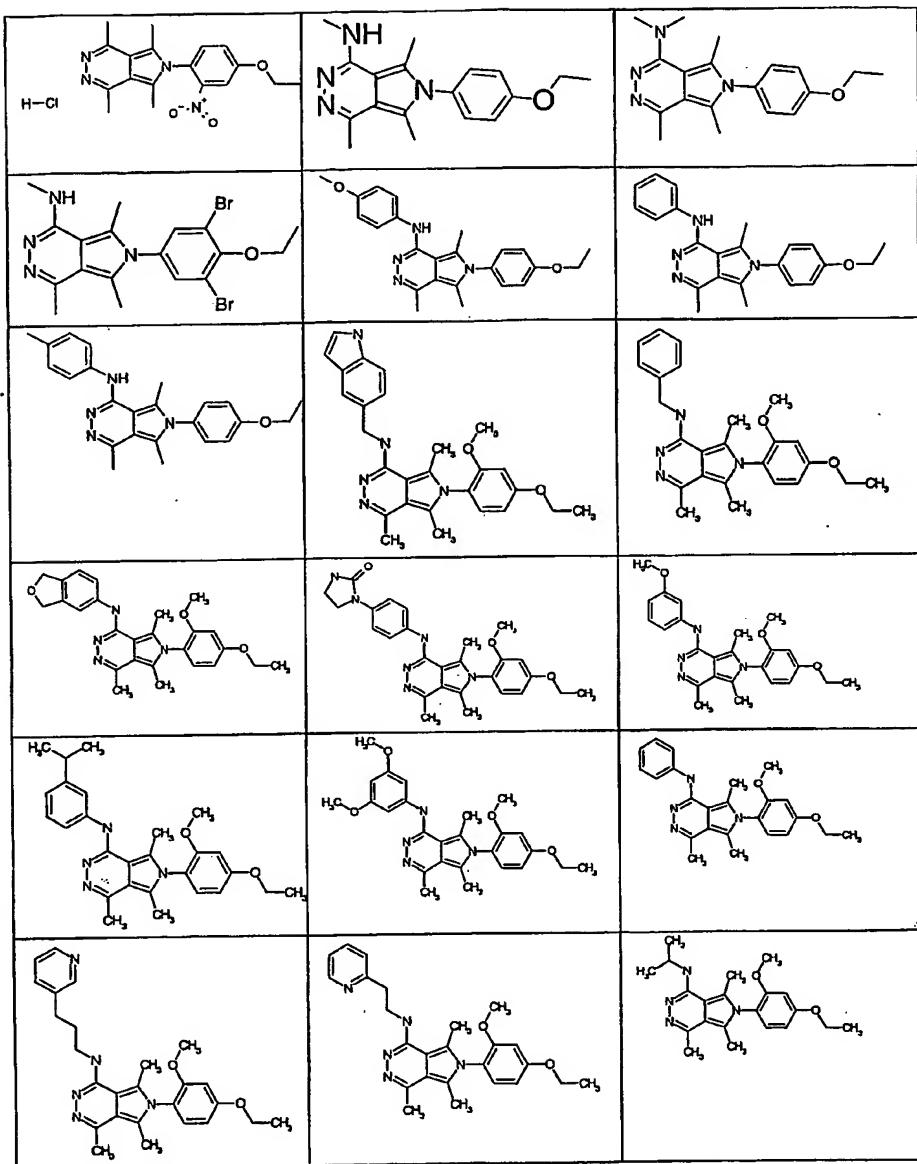


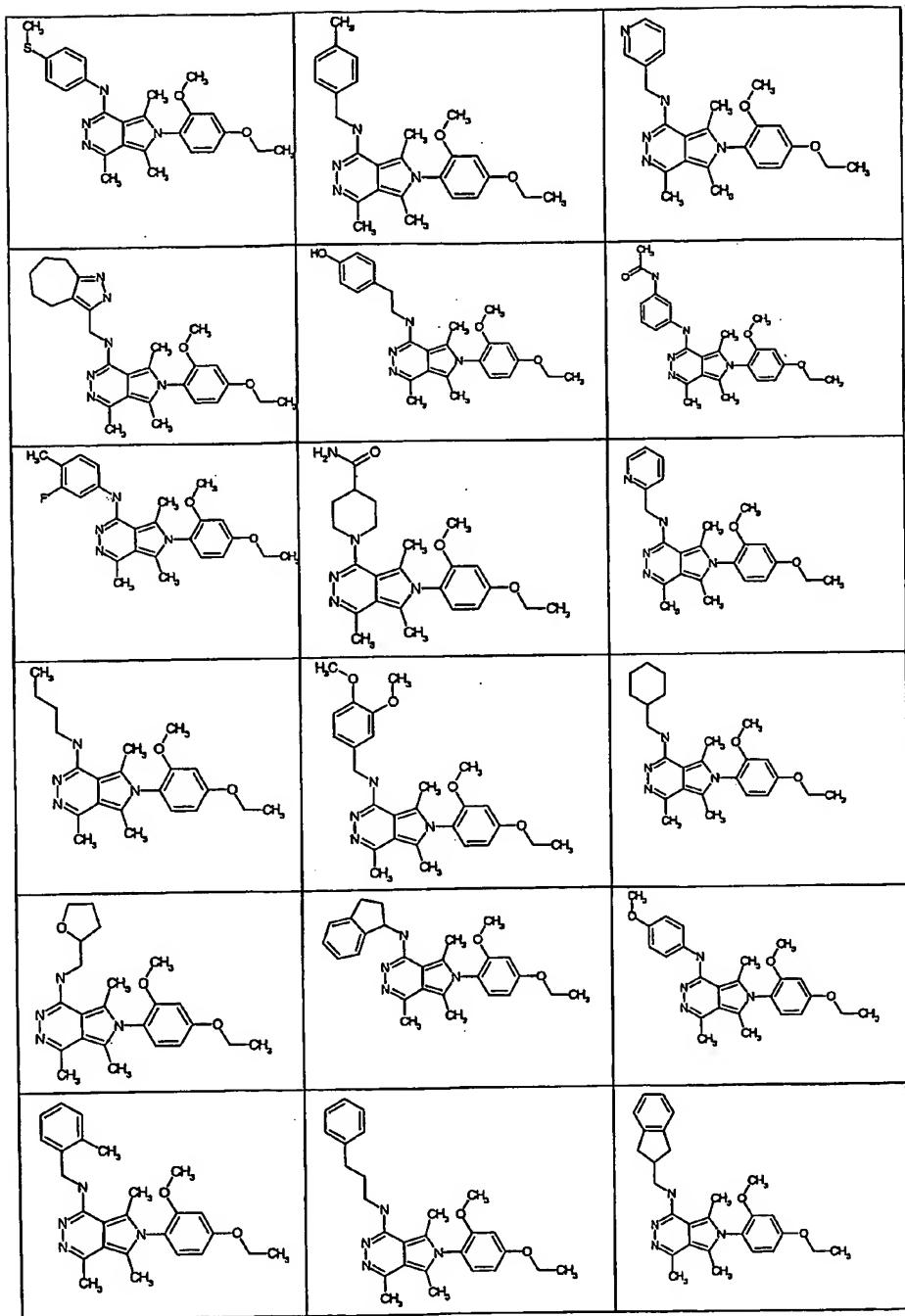


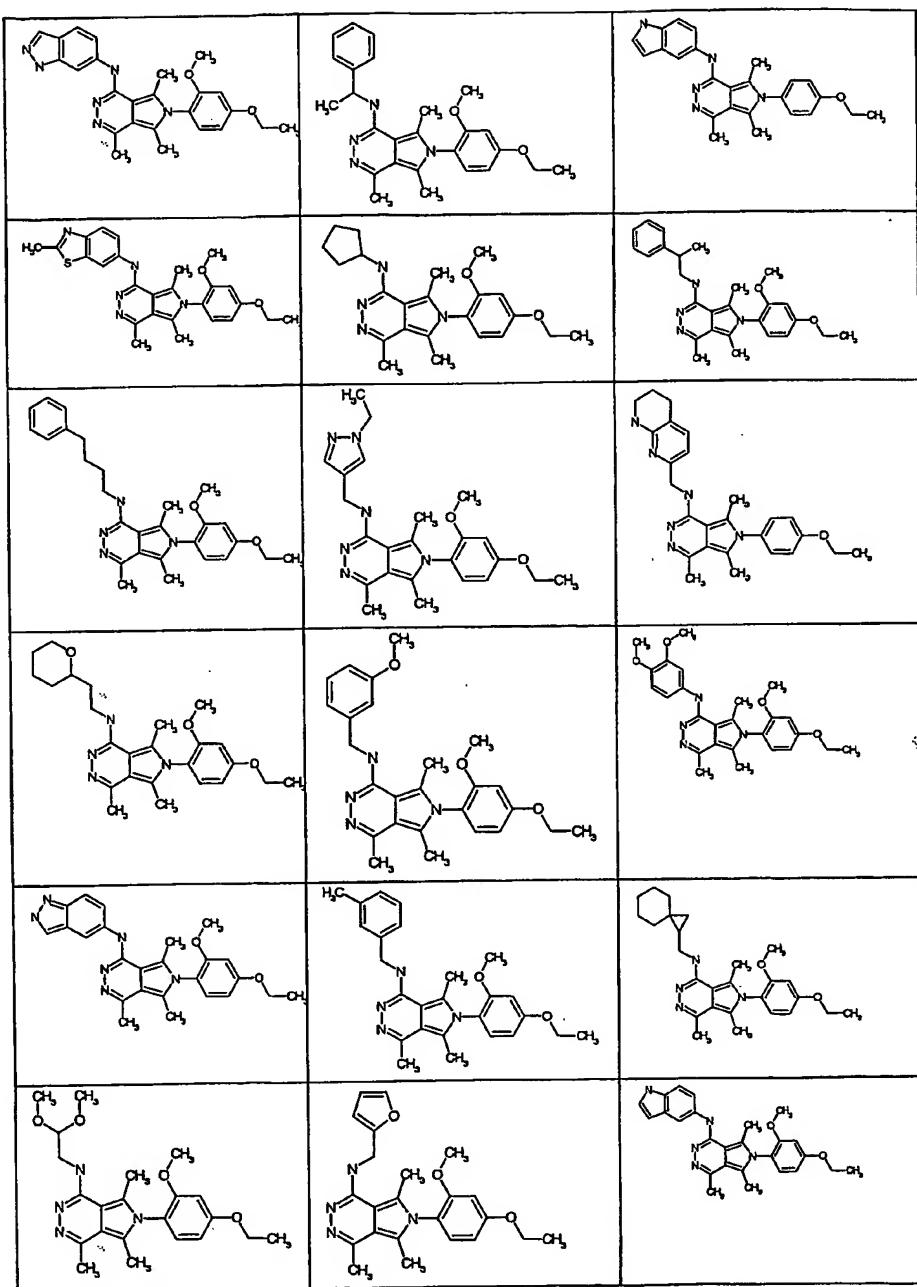


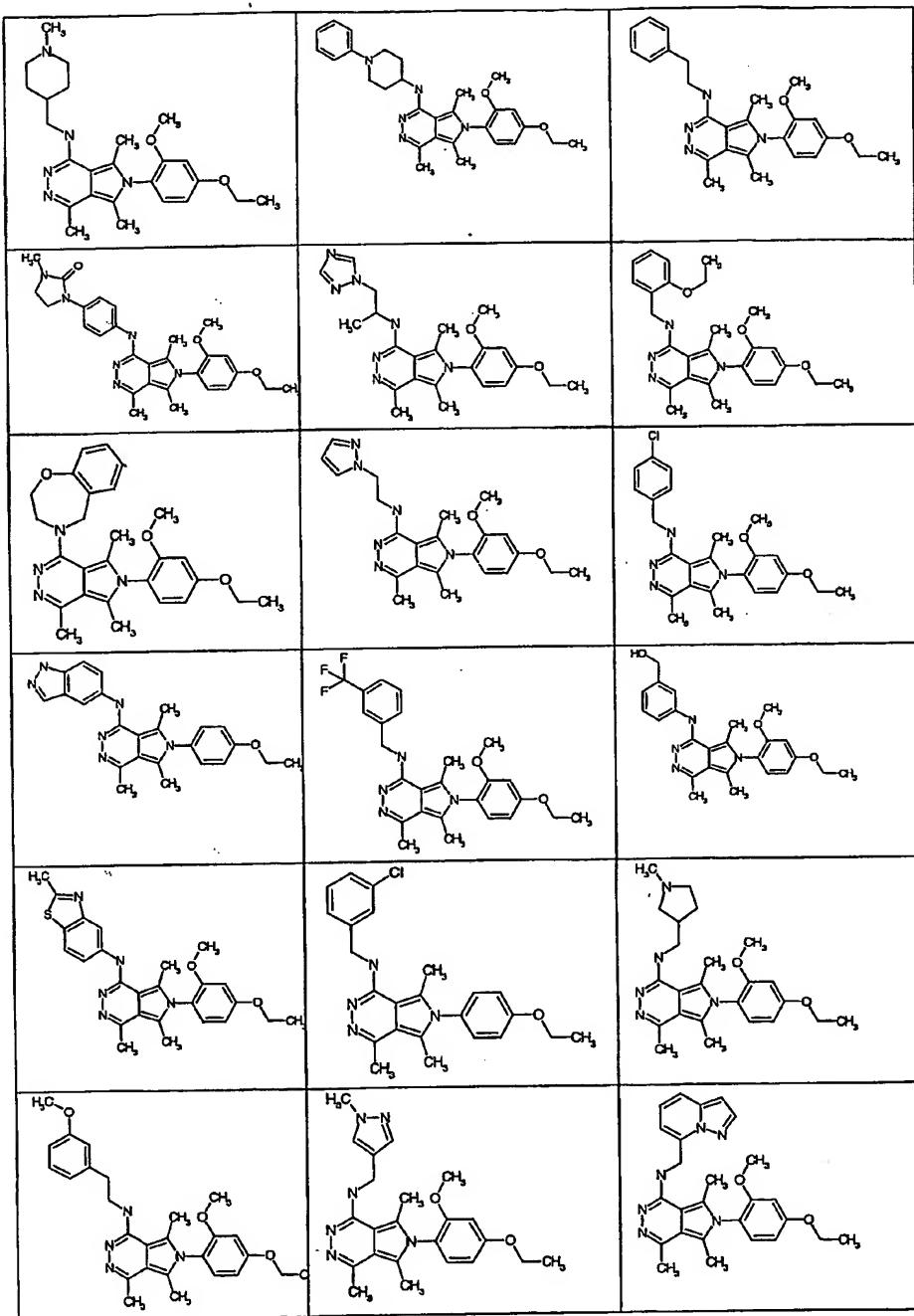


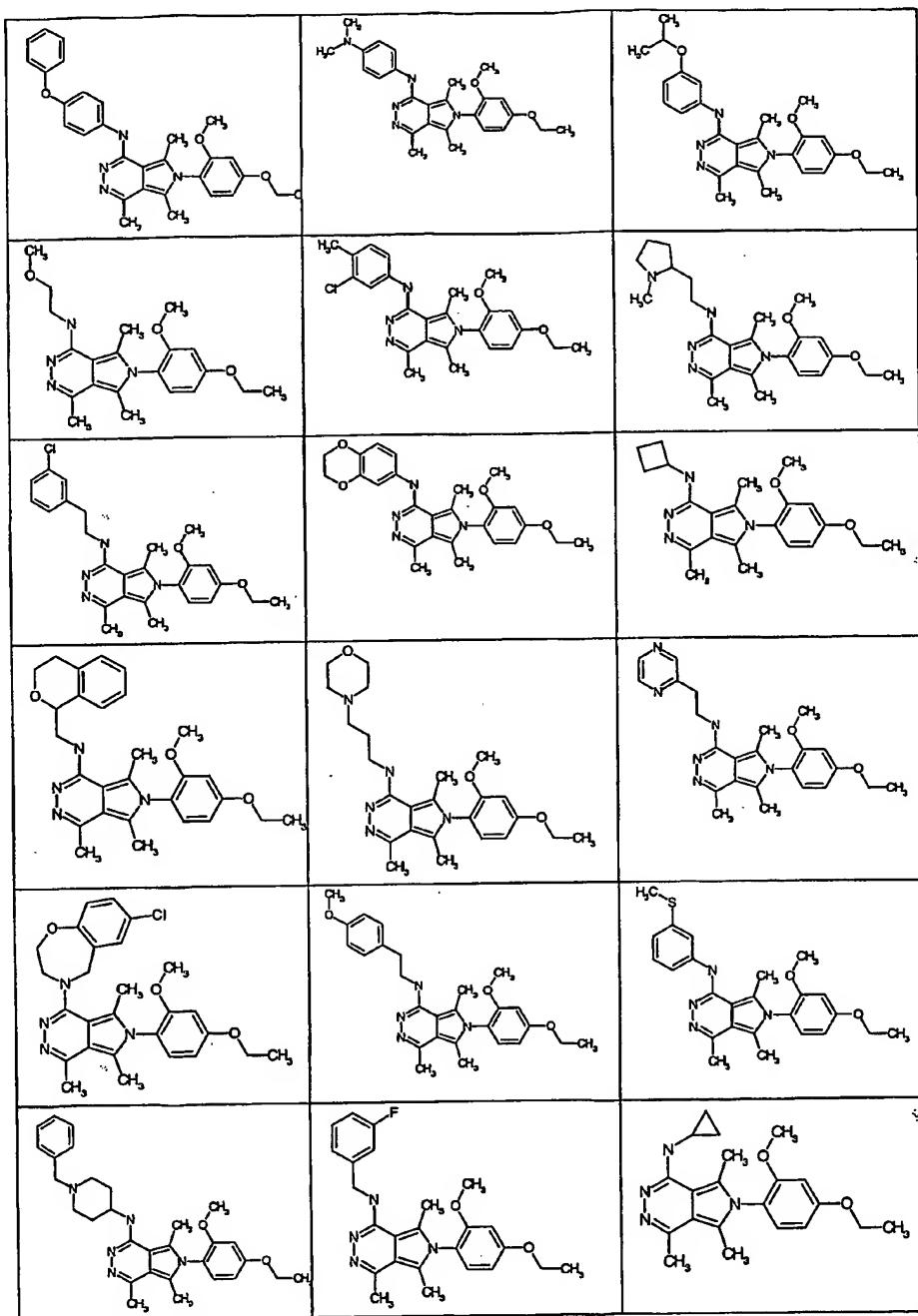


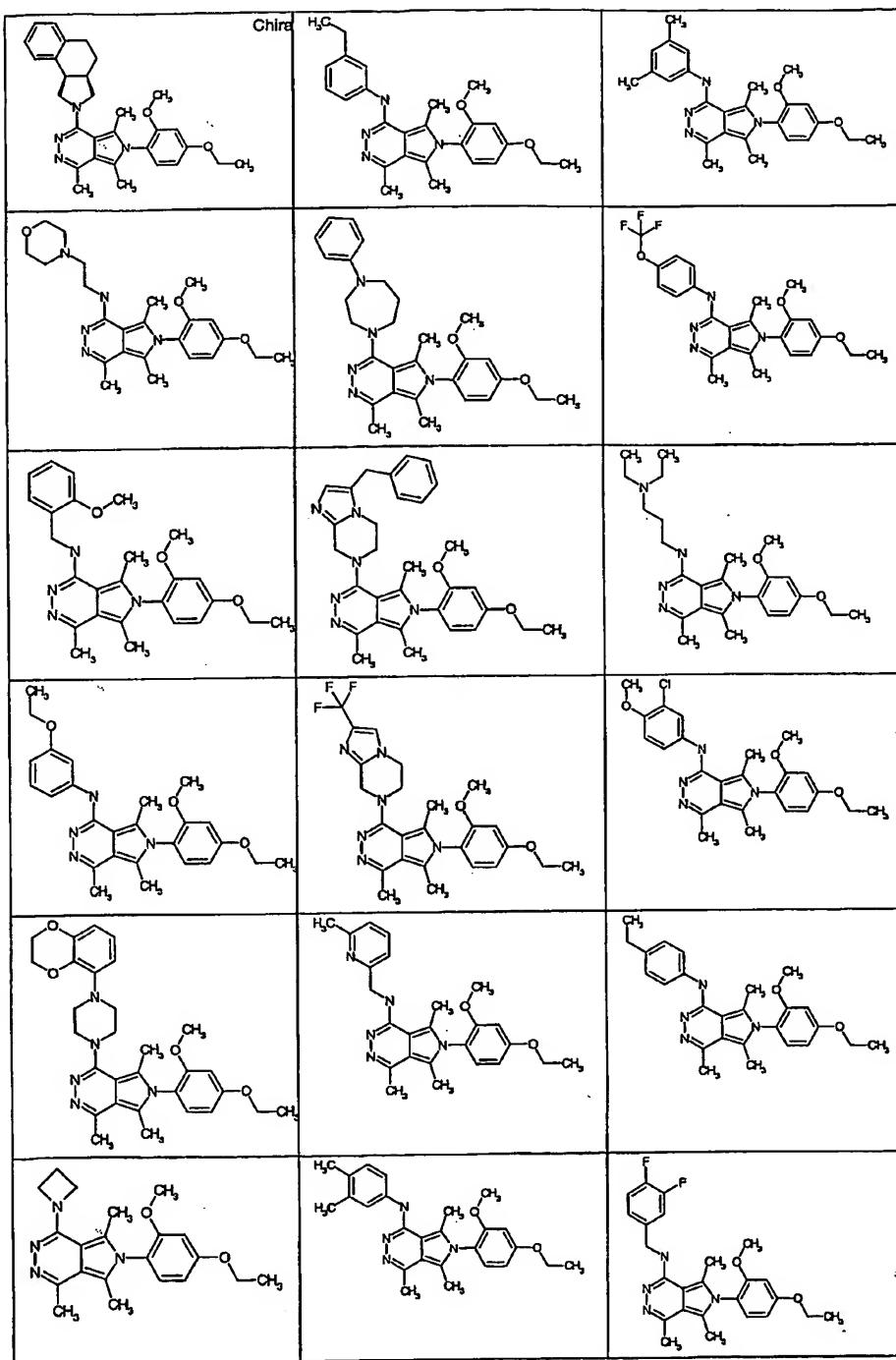


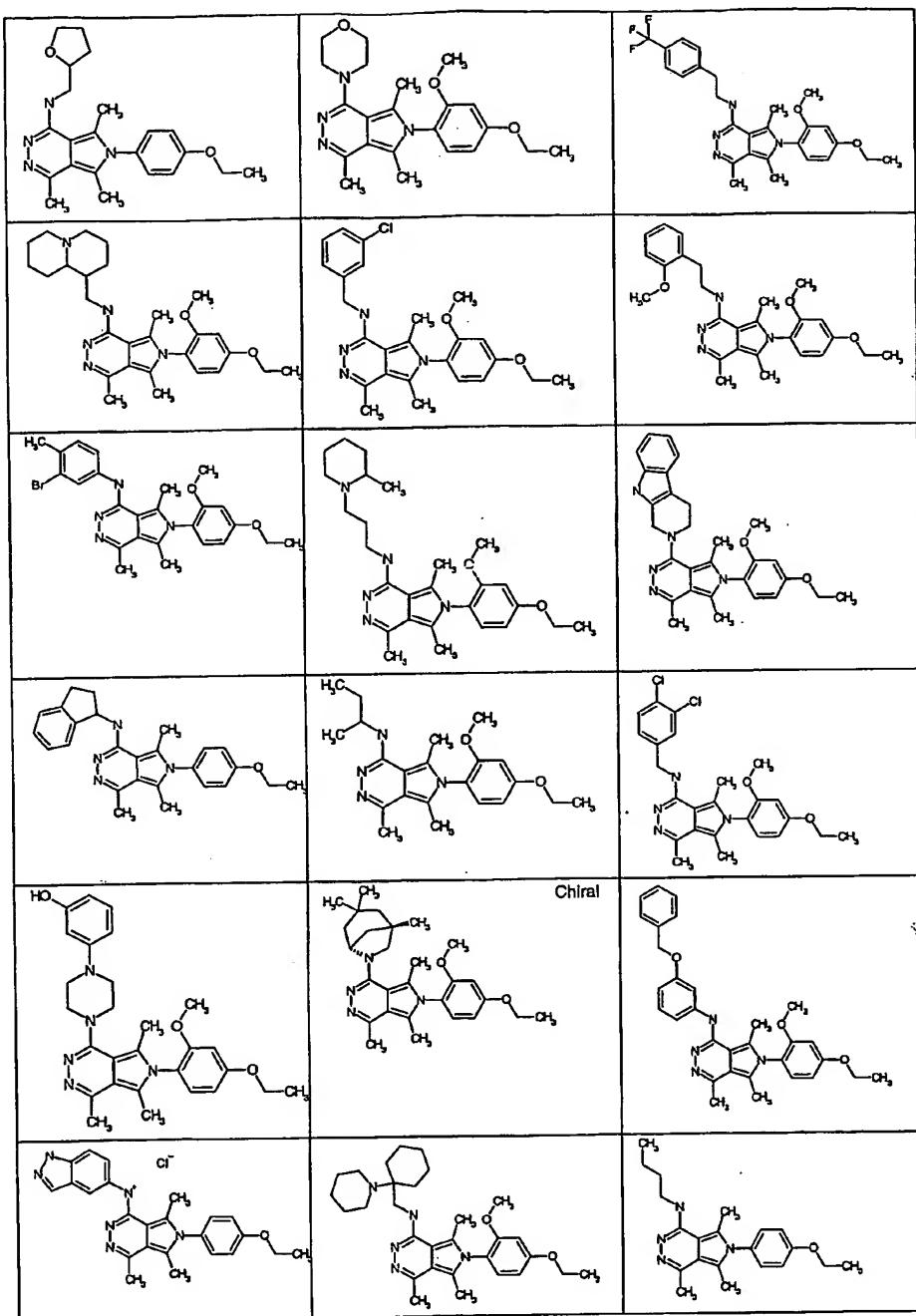


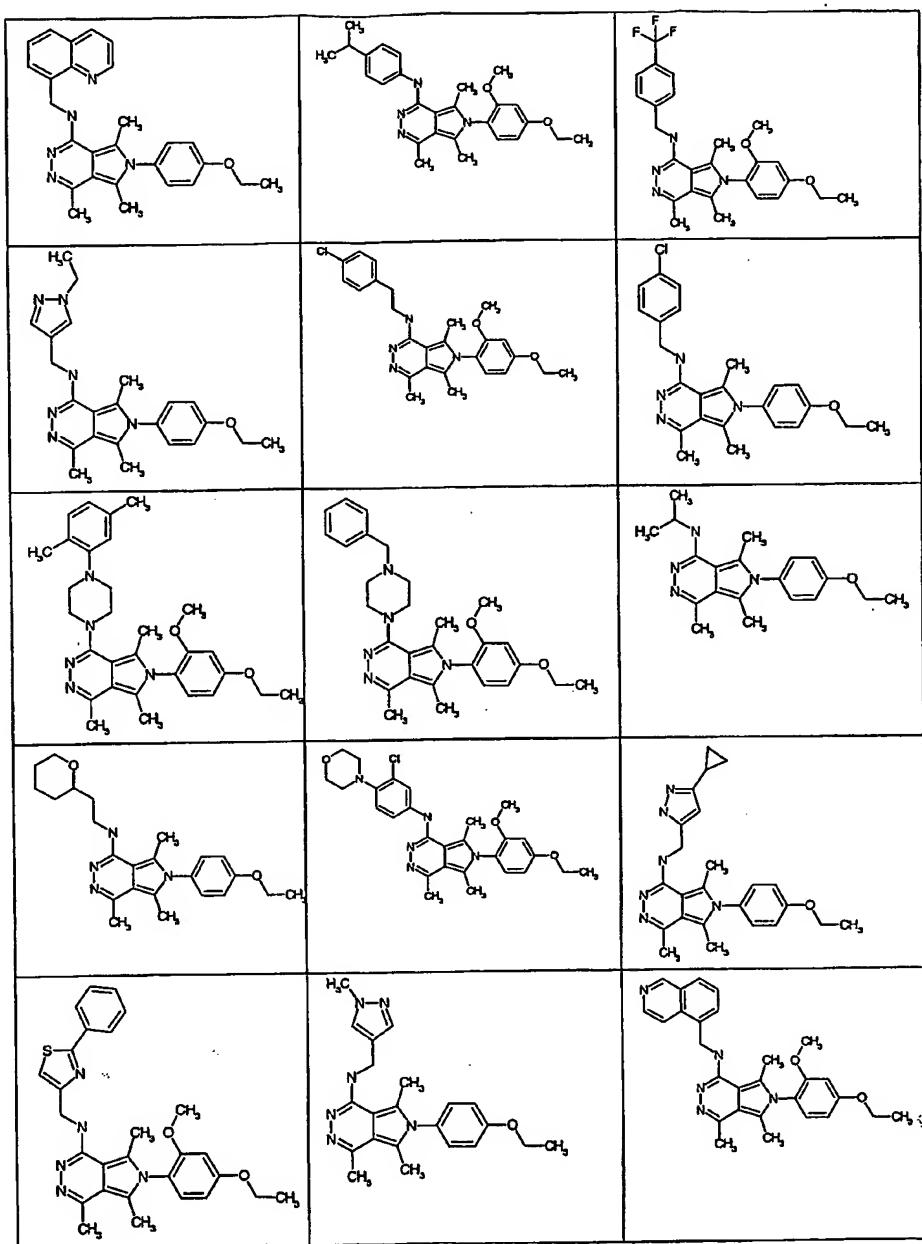


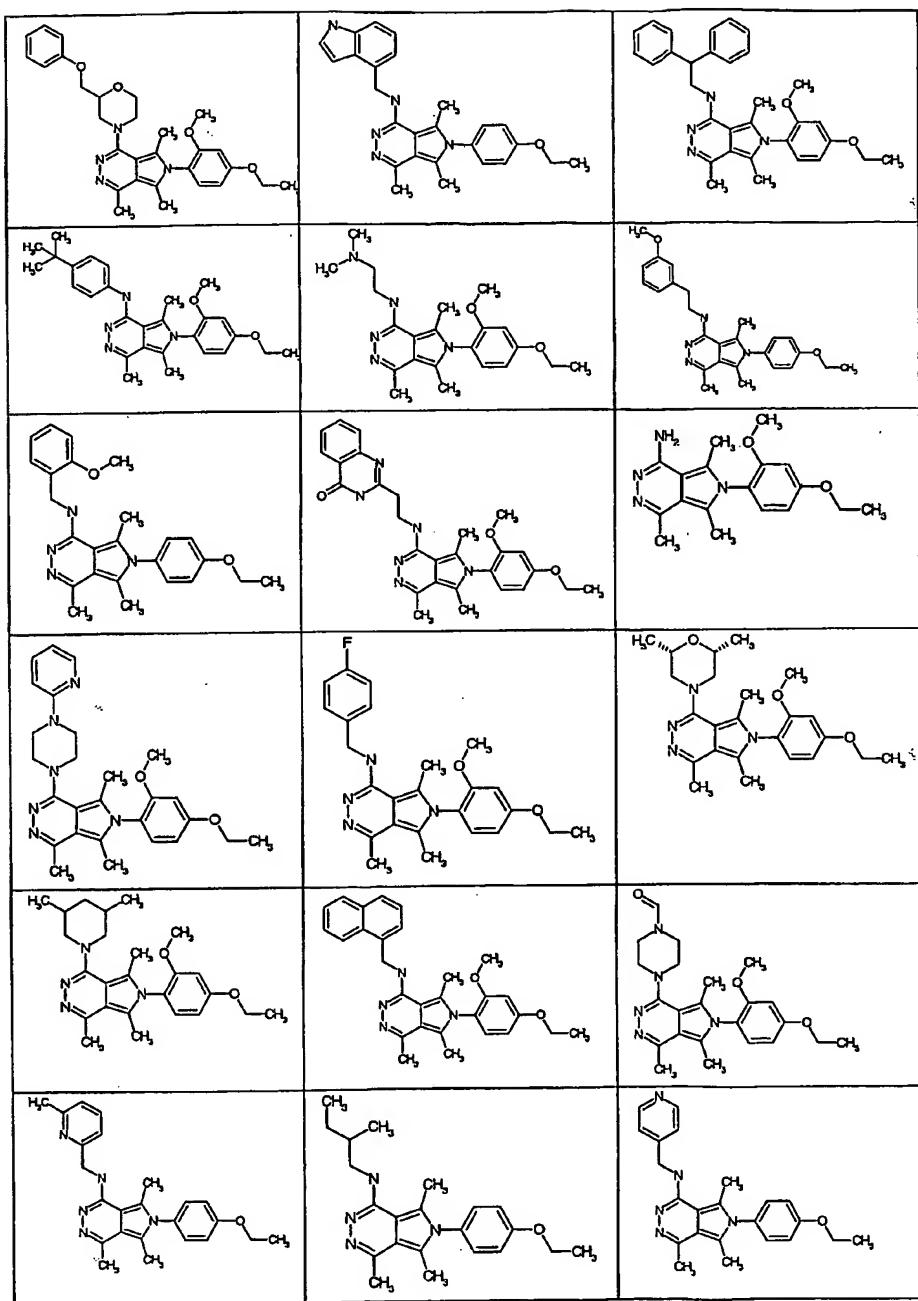


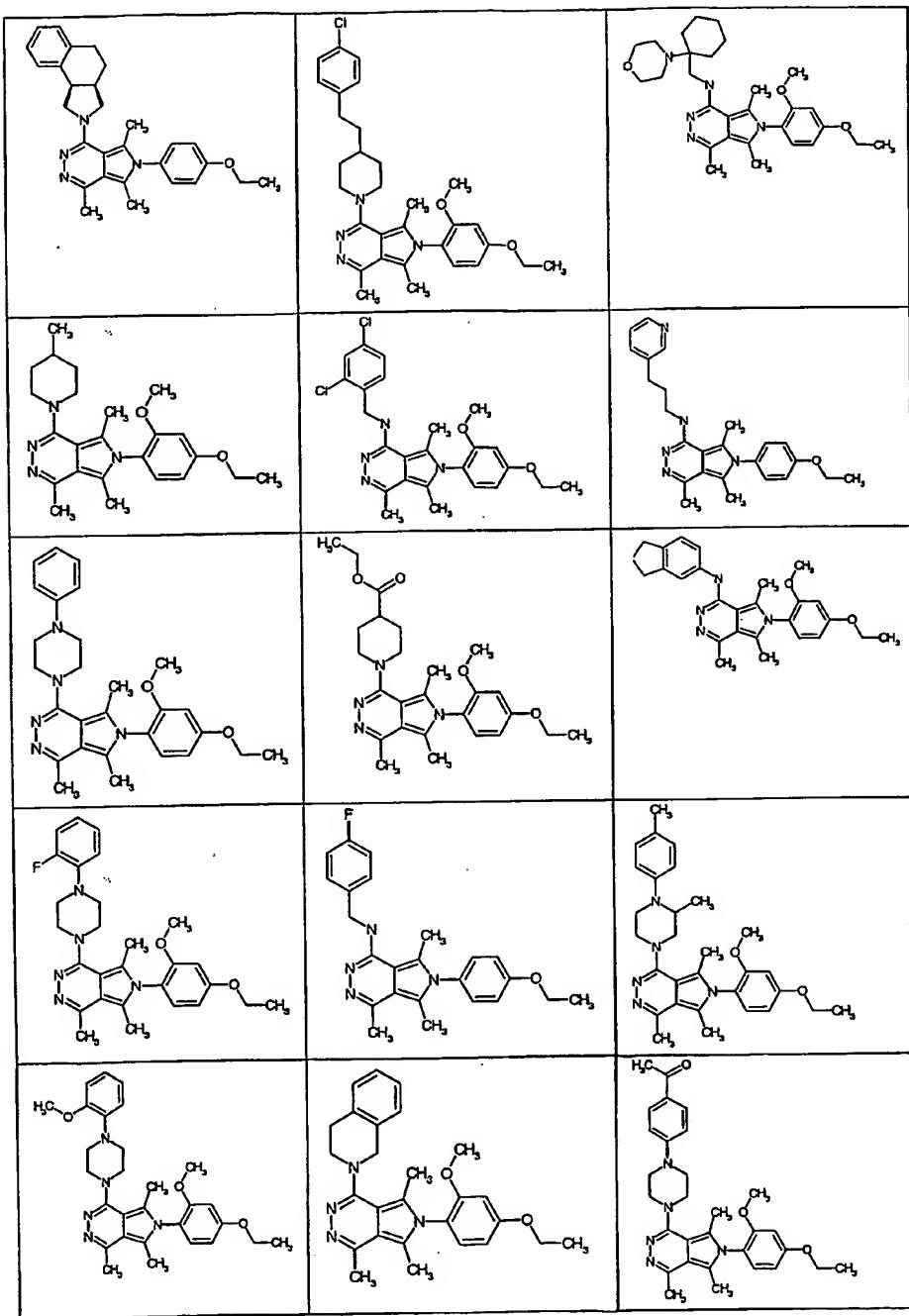


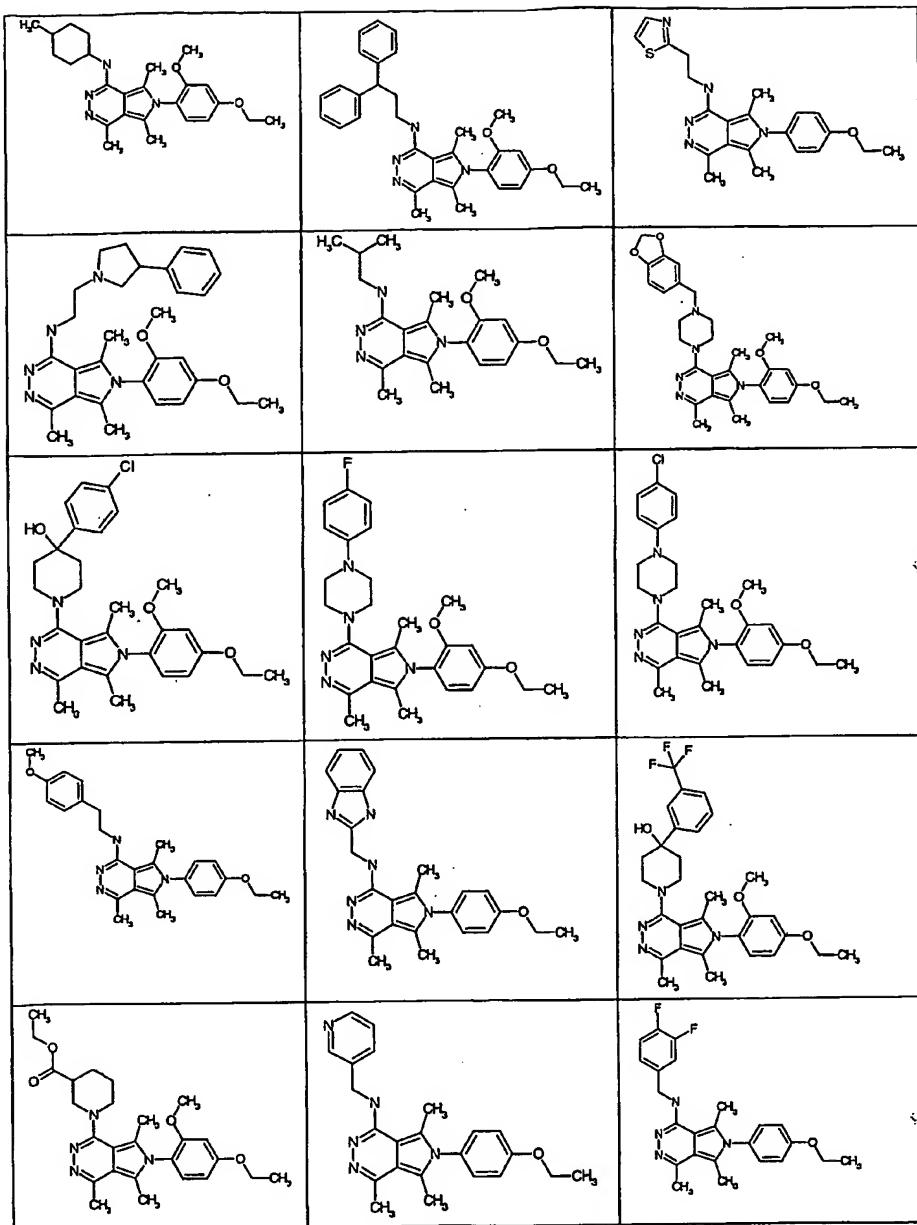


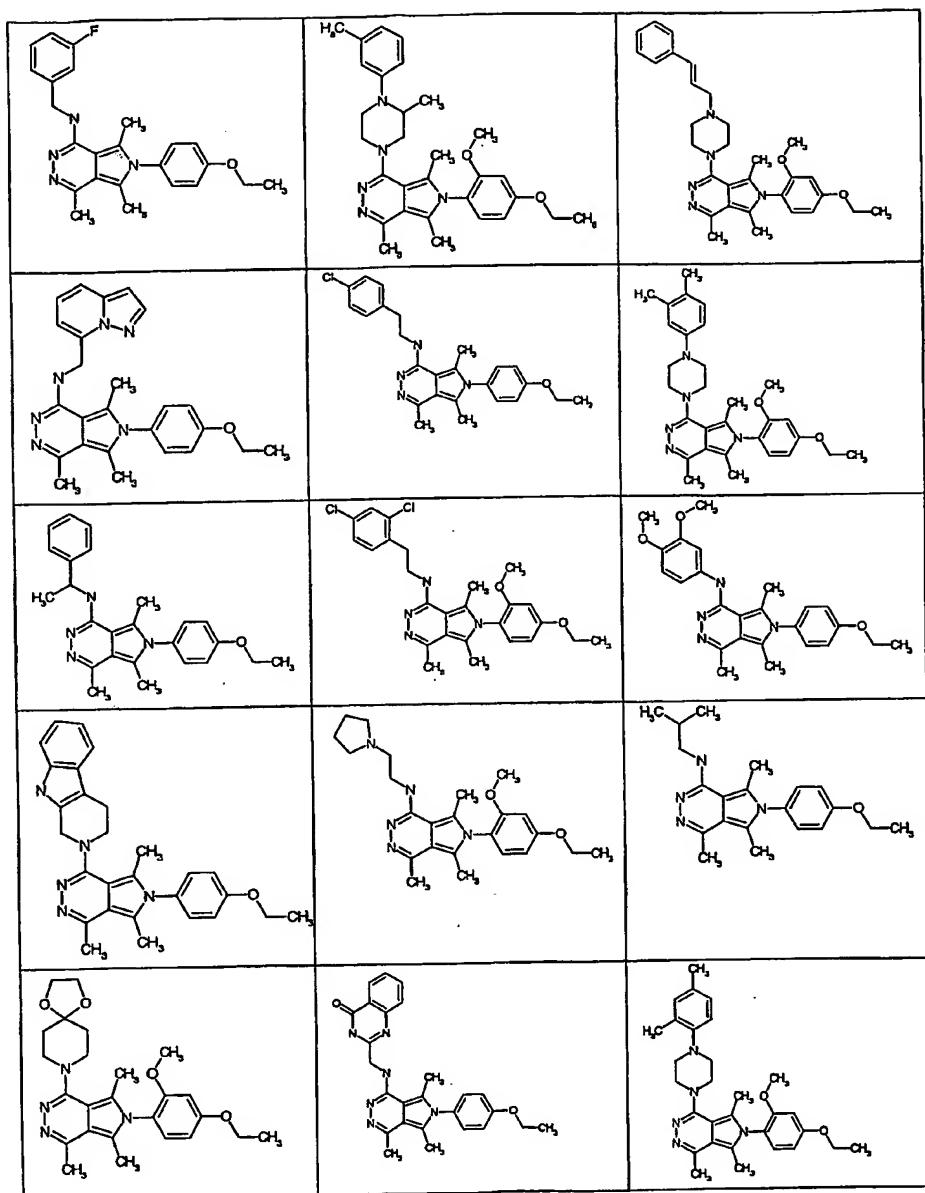


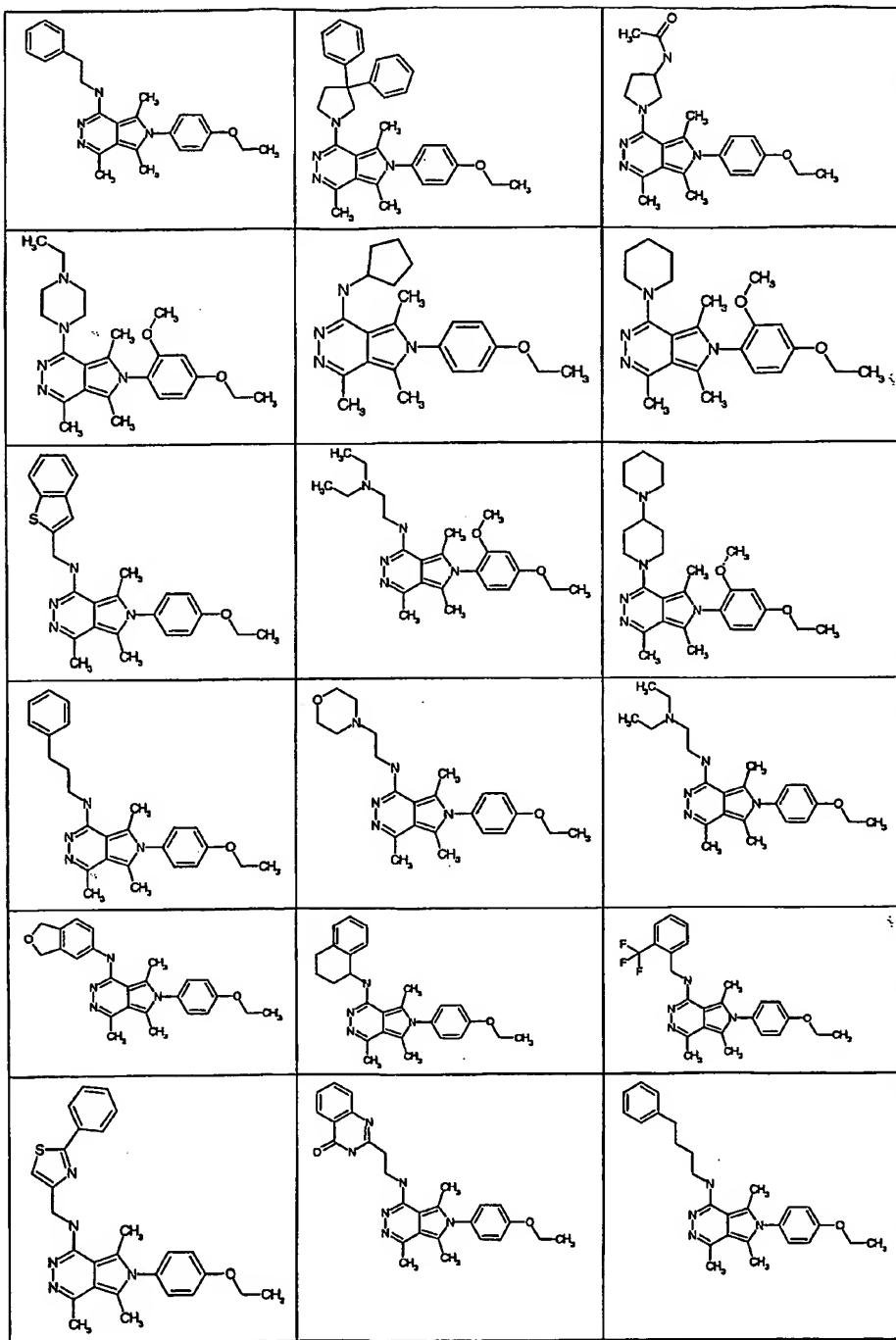


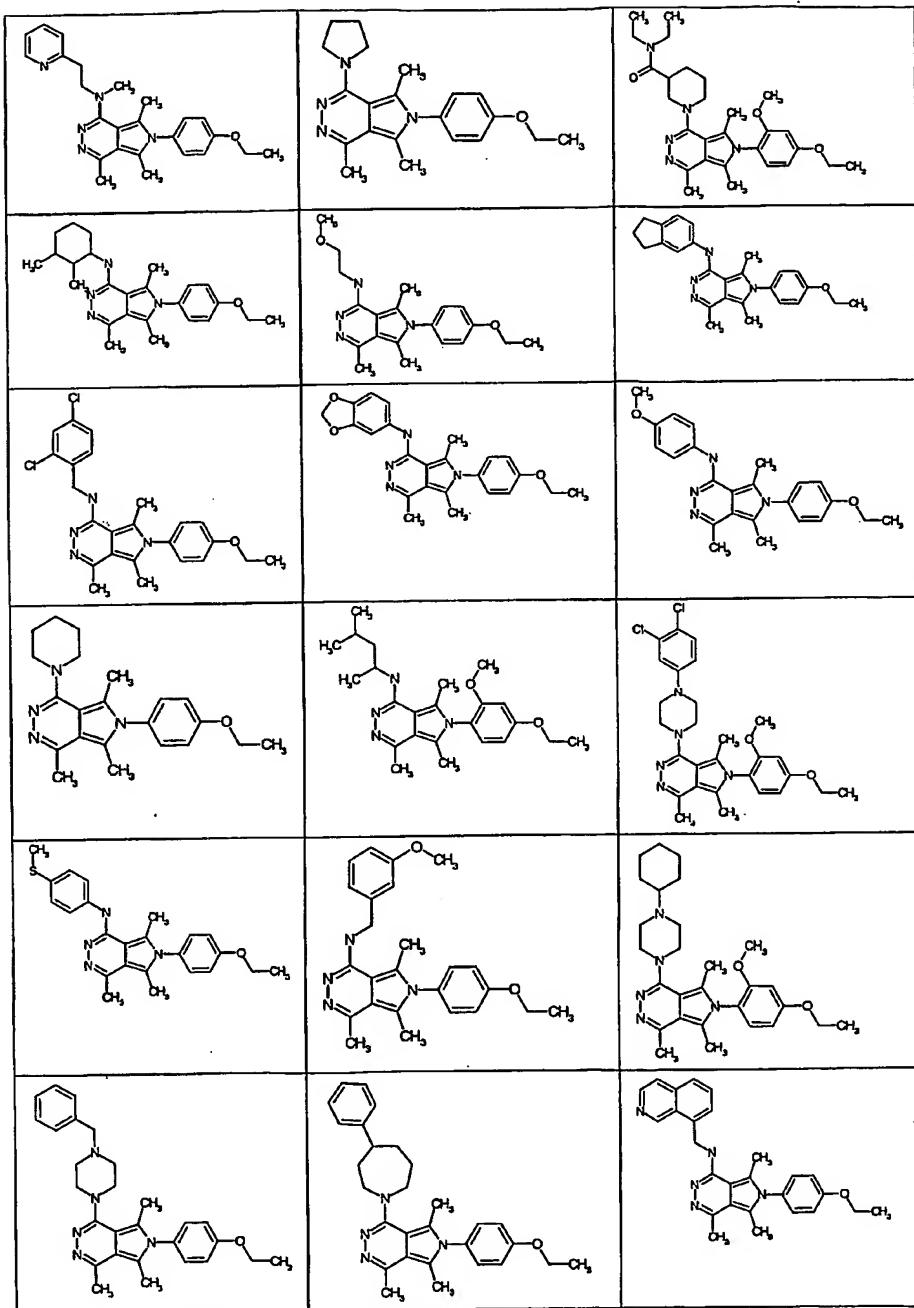


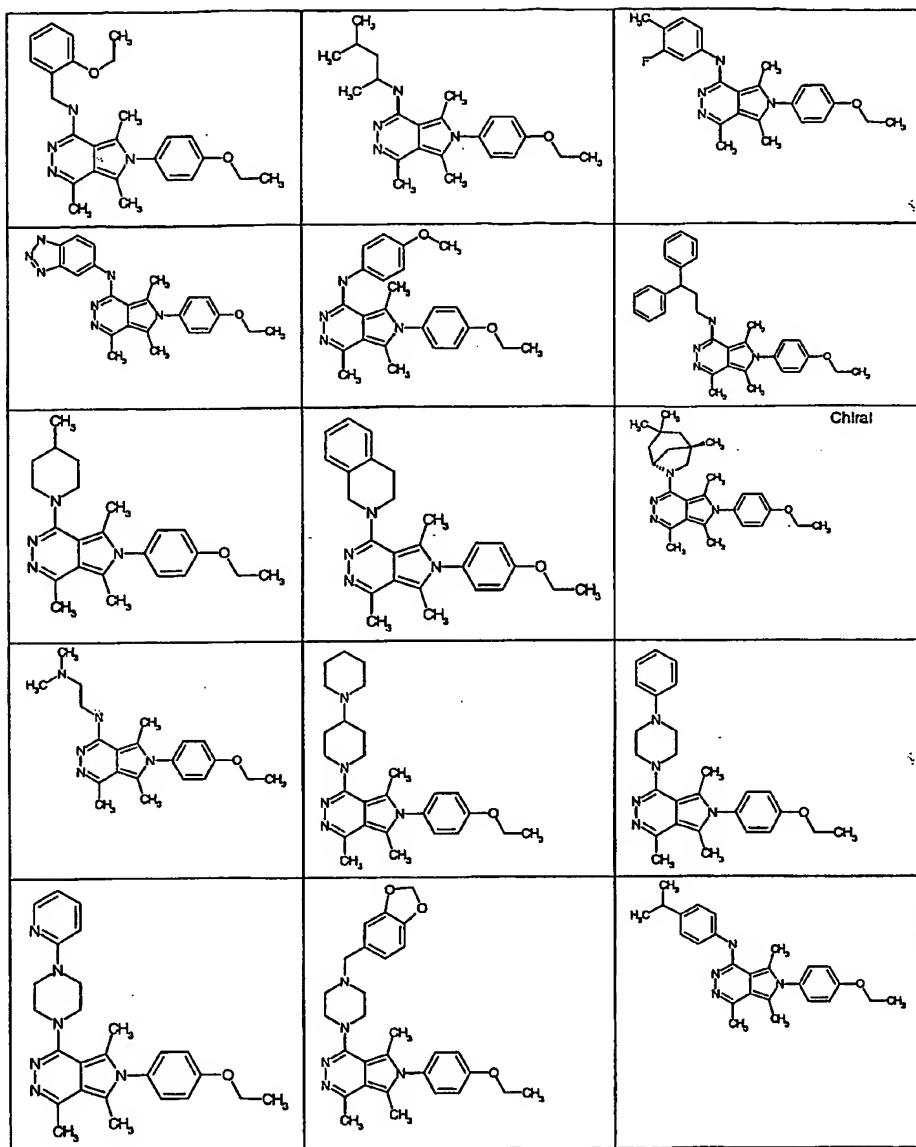


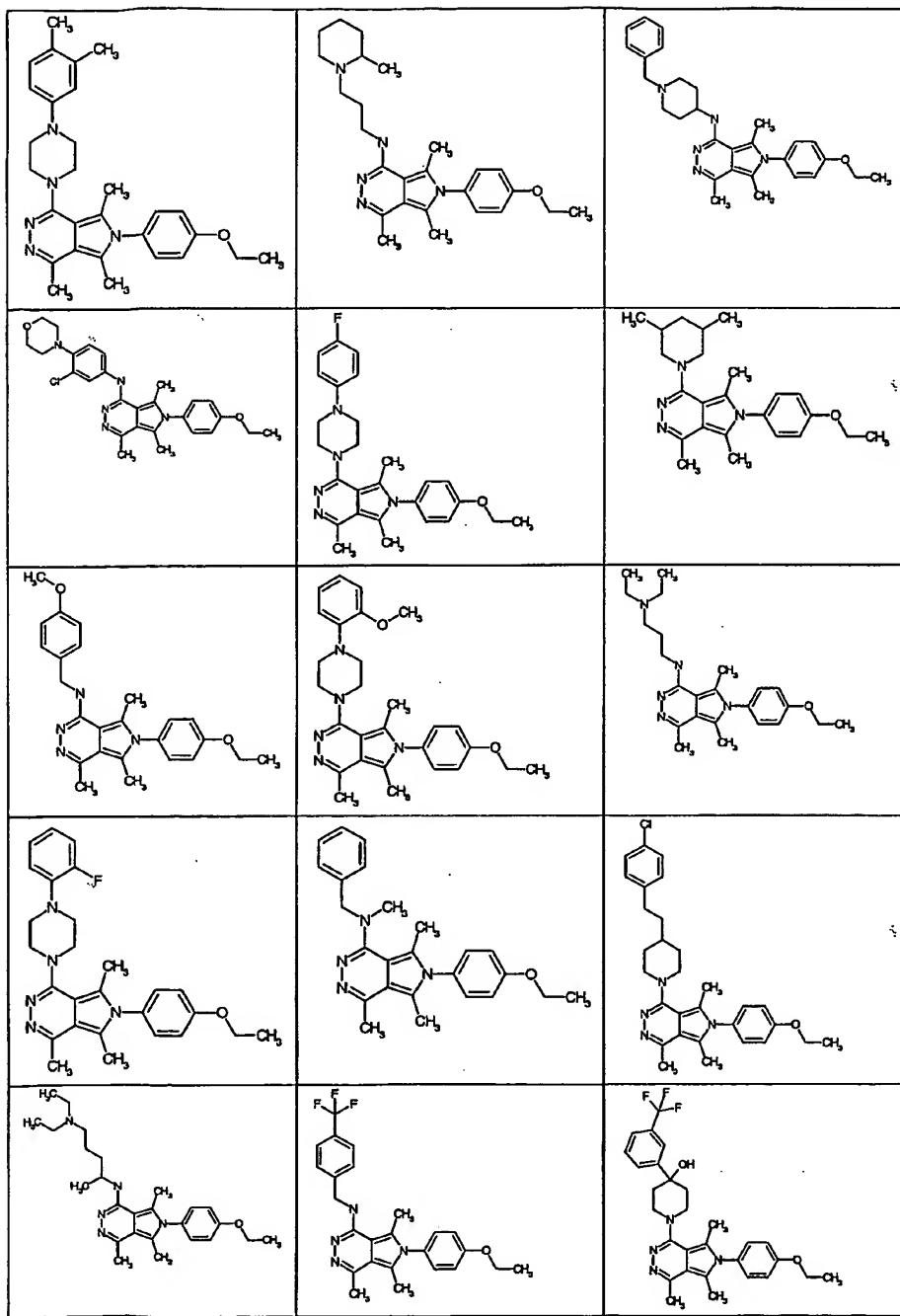


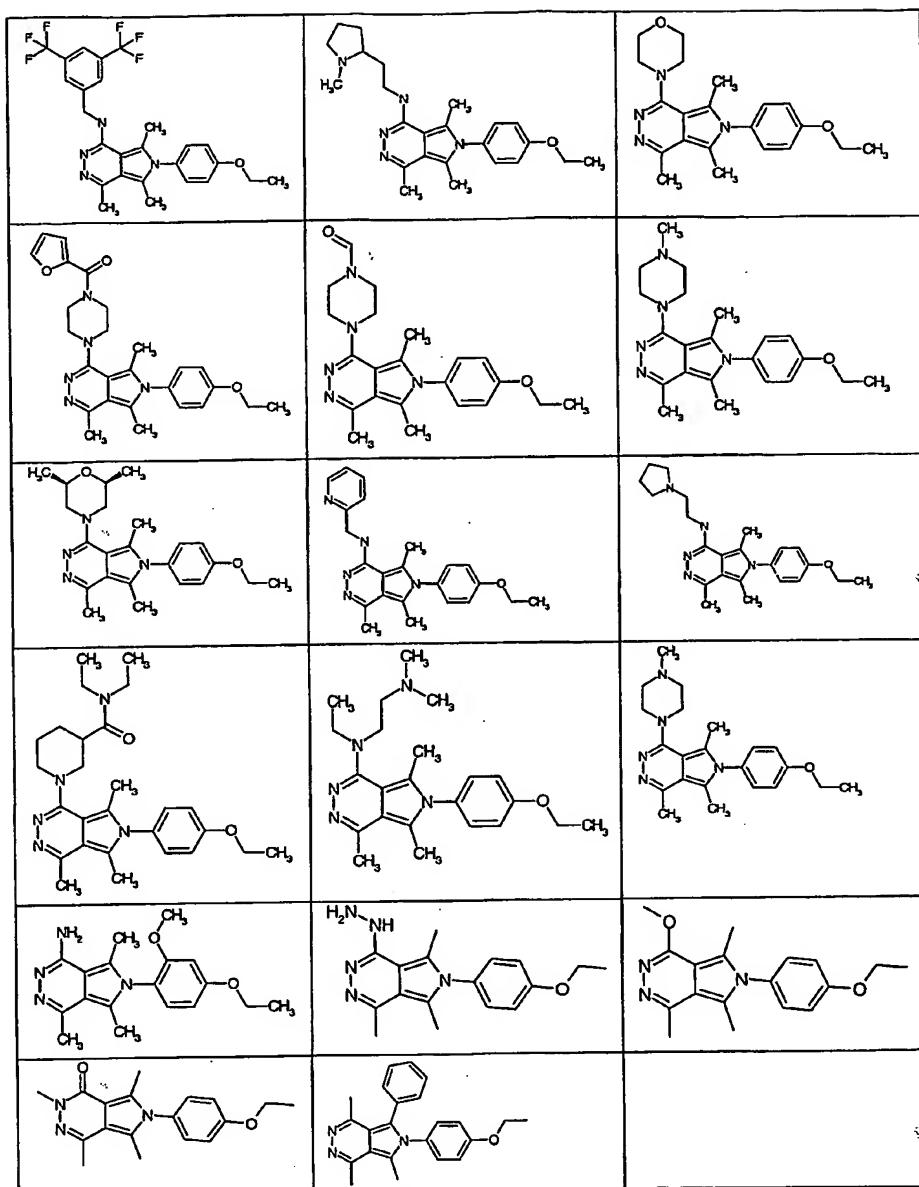






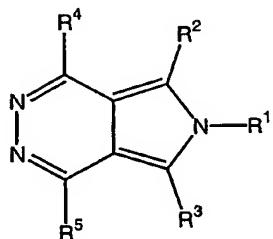






or a pharmaceutically acceptable salt thereof.

## 26. A compound represented by Formula (I):



(I)

or a pharmaceutically acceptable salt thereof, wherein

5        R<sup>1</sup> is -C<sub>0-6</sub>alkyl-aryl, -C<sub>0-6</sub>alkyl-heteroaryl, -C<sub>0-6</sub>alkyl-C<sub>3-6</sub>cycloalkyl, or -C<sub>0-6</sub>alkyl-heteroC<sub>3-7</sub>cycloalkyl, optionally substituted with 1-6 independent halogen, -CN, NO<sub>2</sub>, -C<sub>1-6</sub>alkyl, -C<sub>0-6</sub>alkyl-C<sub>3-6</sub>cycloalkyl, -C<sub>0-6</sub>alkyl-heteroC<sub>3-7</sub>cycloalkyl, -OR<sup>6</sup>, -NR<sup>6</sup>R<sup>7</sup>, -C(=NR<sup>6</sup>)NR<sup>7</sup>R<sup>8</sup>, -N(-NR<sup>88</sup>R<sup>6</sup>)NR<sup>7</sup>R<sup>8</sup>, -NR<sup>6</sup>COR<sup>7</sup>, -NR<sup>6</sup>CO<sub>2</sub>R<sup>7</sup>, -NR<sup>6</sup>SO<sub>2</sub>R<sup>88</sup>, -NR<sup>6</sup>CONR<sup>7</sup>R<sup>8</sup>, -SR<sup>88</sup>, -SOR<sup>88</sup>, -SO<sub>2</sub>R<sup>88</sup>, -SO<sub>2</sub>NR<sup>6</sup>R<sup>7</sup>, -COR<sup>6</sup>, -CO<sub>2</sub>R<sup>6</sup>, -CONR<sup>6</sup>R<sup>7</sup>, -C(=NR<sup>6</sup>)R<sup>7</sup>, or -C(=NOR<sup>6</sup>)R<sup>7</sup> substituents;

10      R<sup>2</sup>, R<sup>4</sup>, R<sup>3</sup>, and R<sup>5</sup> each independently is -C<sub>0-6</sub>alkyl, -C<sub>0-6</sub>alkyl-aryl, -C<sub>0-6</sub>alkyl-heteroaryl, -C<sub>0-6</sub>alkyl-C<sub>3-6</sub>cycloalkyl, or -C<sub>0-6</sub>alkyl-heteroC<sub>3-7</sub>cycloalkyl, optionally substituted with 1-6 independent halogen, -CN, NO<sub>2</sub>, -C<sub>1-6</sub>alkyl, -OR<sup>6</sup>, -NR<sup>6</sup>R<sup>7</sup>, -C(=NR<sup>6</sup>)NR<sup>7</sup>R<sup>8</sup>, -N(-NR<sup>88</sup>R<sup>6</sup>)NR<sup>7</sup>R<sup>8</sup>, -NR<sup>6</sup>COR<sup>7</sup>, -NR<sup>6</sup>CO<sub>2</sub>R<sup>7</sup>, -NR<sup>6</sup>SO<sub>2</sub>R<sup>88</sup>, -NR<sup>6</sup>CONR<sup>7</sup>R<sup>8</sup>, -SR<sup>88</sup>, -SOR<sup>88</sup>, -SO<sub>2</sub>R<sup>88</sup>, -SO<sub>2</sub>NR<sup>6</sup>R<sup>7</sup>, -COR<sup>6</sup>, -CO<sub>2</sub>R<sup>6</sup>, -CONR<sup>6</sup>R<sup>7</sup>, -C(=NR<sup>6</sup>)R<sup>7</sup>, or -C(=NOR<sup>6</sup>)R<sup>7</sup> substituents; and

15      R<sup>6</sup>, R<sup>7</sup>, R<sup>8</sup>, and R<sup>88</sup> each independently is -C<sub>0-6</sub>alkyl, -C<sub>3-7</sub>cycloalkyl, heteroaryl, or aryl; optionally substituted with 1-5 independent halogen, -CN, -C<sub>1-6</sub>alkyl, -O(C<sub>0-6</sub>alkyl), -O(C<sub>3-7</sub>cycloalkyl), -O(aryl), -N(C<sub>0-6</sub>alkyl)(C<sub>0-6</sub>alkyl), -N(C<sub>0-6</sub>alkyl)(C<sub>3-7</sub>cycloalkyl), or -N(C<sub>0-6</sub>alkyl)(aryl) substituents; provided that the compound is not

20      6-methyl-6H-pyrrolo[3,4-d]pyridazine, 1,4,5,7-tetramethyl-6-phenyl-6H-pyrrolo[3,4-d]pyridazine, 1,4,5-trimethyl-6,7-diphenyl-6H-pyrrolo[3,4-d]pyridazine, 5,7-dimethyl-1,4,6-triphenyl-6H-pyrrolo[3,4-d]pyridazine, 5-methyl-1,4,6,7-tetraphenyl-6H-pyrrolo[3,4-d]pyridazine,

25

1,4-bis-(4-methoxy-phenyl)-5,7-dimethyl-6-phenyl-6*H*-pyrrolo[3,4-*d*]pyridazine,  
1,4-bis-(4-methoxy-phenyl)-5-methyl-6,7-diphenyl-6*H*-pyrrolo[3,4-*d*]pyridazine,  
5 1,4-diethyl-5,7-dimethyl-6-phenyl-6*H*-pyrrolo[3,4-*d*]pyridazine,  
1,4,5,7-tetramethyl-6*H*-pyrrolo[3,4-*d*]pyridazine,  
N-(1,4,5,7-tetramethyl-pyrrolo[3,4-*d*]pyridazin-6-yl)-benzamide,  
1,4,5,7-tetramethyl-pyrrolo[3,4-*d*]pyridazin-6-ylamine picrate,  
1,4,5,7-tetramethyl-pyrrolo[3,4-*d*]pyridazin-6-ylamine,  
10 5,7-dimethyl-6-phenyl-6*H*-pyrrolo[3,4-*d*]pyridazine,  
5,7-dimethyl-2-phenacyl-6*H*-pyrrolo[3,4-*d*]pyridazinium bromide,  
2-(2-methoxycarbonylvinyl)-5,7-dimethyl-6*H*-pyrrolo[3,4-*d*]pyridazinium tetrafluoroborate  
15 5,7-diphenyl-6*H*-pyrrolo[3,4-*d*]pyridazine,  
5,6,7-trimethyl-6*H*-pyrrolo[3,4-*d*]pyridazine,  
1,4-diphenyl-7,8,9,10-tetrahydro-pyridazino[4,5-*a*]indolizine,  
5-methyl-1,4-diphenyl-7,8,9,10-tetrahydro-pyridazino[4,5-*a*]indolizine,  
6-benzyl-1,4-diphenyl-5-p-tolyl-6*H*-pyrrolo[3,4-*d*]pyridazine,  
6-benzyl-5-(2-chloro-phenyl)-1,4-diphenyl-6*H*-pyrrolo[3,4-*d*]pyridazine,  
20 1,4,5,6,7-pentaphenyl-6*H*-pyrrolo[3,4-*d*]pyridazine,  
6,7,10,11-tetraphenyl-pyridazino[4',5':3,4]pyrrolo[1,2-*a*]quinoxaline,  
11-(4-nitro-phenyl)-6,7,10-triphenyl-pyridazino[4',5':3,4]pyrrolo[1,2-*a*]quinoxaline,  
25 6-benzyl-1,4,5-triphenyl-6*H*-pyrrolo[3,4-*d*]pyridazine,  
9,12-diphenyl-pyridazino[4',5':3,4]pyrrolo[2,1-*a*]isoquinoline,  
5-methylsulfanyl-1,4,6,7-tetraphenyl-6*H*-pyrrolo[3,4-*d*]pyridazine,  
1,4,6,7-tetraphenyl-6*H*-pyrrolo[3,4-*d*]pyridazine-5-carboxylic acid  
ethyl ester,  
30 7,10-diphenyl-pyridazino[4',5':3,4]pyrrolo[1,2-*a*]quinoline,  
11,14-diphenyl-pyridazino[4',5':3,4]pyrrolo[1,2-*f*]phenanthridine,  
1-oxo-7-oxy-6b,11b-dihydro(pyridazino[4',5'-*c*]-pyrrolo)[2,1-*c*]benzoxazine-1,4,  
35 10-methyl-1,4-diphenyl-8,9-dihydro-7*H*-benzo(*ef*)pyridazino[4,5-*a*]cycl[3,3.2]azine,

11-methyl-1,4-diphenyl-7,8,9,10-  
tetrahydrocyclohepta(*ef*)pyridazino[4,5-*a*]cycl[3.3.2]azine,  
1,4-dichloro-5,6,7-trimethyl-6*H*-pyrrolo[3,4-*d*]pyridazine,  
1-chloro-4-ethoxy-5,6,7-trimethyl-6*H*-pyrrolo[3,4-*d*]pyridazine,  
5 1-chloro-5,6,7-trimethyl-6*H*-pyrrolo[3,4-*d*]pyridazinium chloride,  
1-ethoxy-2,5,6,7-tetramethyl-6*H*-pyrrolo[3,4-*d*]pyridazinium  
tetrafluoroborate,  
10 1-ethoxy-5,6,7-trimethyl-2*H*,6*H*-pyrrolo[3,4-*d*]pyridazinium  
tetrafluoroborate,  
1-ethoxy-3-ethyl-5,6,7-trimethyl-6*H*-pyrrolo[3,4-*d*]pyridazinium  
tetrafluoroborate,  
15 1-ethoxy-5,6,7-trimethyl-6*H*-pyrrolo[3,4-*d*]pyridazine,  
5-cyano-1,4-dimethylpyridazino[4,5-*a*]indolizine,  
1,4-dimethyl-6-phenyl-2,3,8a-triaza-fluorene-9-carbonitrile,  
6-benzolyl-1,4-dimethyl-2,3,8a-triaza-fluorene-9-carbonitrile,  
15 6-benzyl-1,4-diphenyl-2,3,8a-triaza-fluorene-9-carbonitrile,  
1,4,6-trimethyl-2,3,8a-triaza-fluorene-9-carbonitrile,  
5-cyano-1,4-diphenylpyridazino[4,5-*a*]indolizine,  
6-methyl-1,4-diphenyl-2,3,8a-triaza-fluorene-9-carbonitrile,  
20 6-benzoyl-1,4-diphenyl-2,3,8a-triaza-fluorene-9-carbonitrile,  
1,4,6-triphenyl-2,3,8a-triaza-fluorene-9-carbonitrile,  
5,7-dimethyl-1,4-diphenyl-2,3,8a-triaza-fluorene-9-carbonitrile,  
9,12-diphenyl-pyridazino[4',5':3,4]pyrrolo[2,1-*a*]isoquinoline-8-  
carbonitrile,  
25 dimethyl 3,12,13,17-tetramethyl-7<sup>2</sup>,7<sup>3</sup>-diazabenzo[g]porphyrin-2,18-  
dipropionate,  
5,6-dihydro-2,3-dimethoxypyridazino[4',5':3,4]pyrrolo[2,1-*a*]isoquinolin-9-ol,  
5,6-dihydro-2,3-dimethoxypyridazino[4',5':3,4]pyrrolo[2,1-*a*]isoquinolin-9-ol-hydrochloride,  
30 3-methyl-6,9-diphenylthiazolo[3',2':1,2]pyrrolo[3,4-*d*]pyridine, or  
1,4-diphenylpyridazino[4',5':3,4]pyrrolo[2,1-*b*]benzothiazole; and  
is not selected from the following table:

